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Technology Will Lead Nowhere Without People

Tony Bogar

A funny thing happened when we were planning this issue of *Business Ingenuity*.

We started out focusing on technology. Massachusetts is one of the world's leading centers for science and technology, and we wanted to tell you about the ingenuity that has fueled the high-tech economy in this state for decades.

You've all heard the story of Route 128, "America's Technology Highway," of companies like Digital and Wang that helped start the information revolution. And you know about the second wave of companies, like Lotus, that made technology more useful and accessible to companies of all sizes. Well, we decided we wanted to explore the third wave of information technology: telecommunications and the Internet (see "Wired for Growth," page 12). This wave has yet to crest, but already the entire state, from Cape Cod in the east to the Berkshires in the west, is incubating Internet service providers and related companies that have innovative ideas about communications and information transferal, companies like Xedia and Shore.Net. These ideas are breaking down traditional ways of communicating, and they are changing the way we all do business. Their ingenuity is making the Internet faster, easier, and more accessible not just to businesses but to people in all walks of life.

Now here's the funny part about our grand ideas for this issue. We kept coming back to "people." Technology is great. Information is changing the world. But it is powerless without people to innovate, to create, to work together to implement ideas.

We decided to address the "people" issue in several ways. For example, we profile Merrimack Valley Chamber of Commerce President and CEO Joseph James Bevilacqua to show how one person can dramatically affect the business climate (see "This Chamber Follows a Tradition of Innovation," page 26). We also explore how one program in Massachusetts, the Babson College School of Executive Education (see "Thinking Like the CEO," page 6), has established itself as the leader in developing a new mindset among corporate executives. The college customizes its programs to each company, but in every instance it emphasizes entrepreneurialism. It pushes students to break out of their cubicle thinking, to wrap their heads around new ways of doing business, alternative methods of achieving their goals. Perhaps more than any other executive education program in the country, it is setting the tone in the upper ranks of corporate America.

Funny how it all ties together, isn't it, how technology and people, entrepreneurialism and innovation all rely on each other to be successful. We can learn from each other's ideas, no matter what sector of the economy we work in, no matter what title we hold.

Our third feature in this issue combines technology and people in a discussion of the electric industry deregulation in Massachusetts (see "Market Power," page 18).

Utility deregulation is one of the most important topics in the business world today. It can save companies significant amounts of money, but it goes beyond the bottom line. The savings can be invested back into the company, allowing for more rapid growth, which in turn can mean more jobs for workers. Back to "people" again. But deregulation can also free up more of the ingenuity that makes the Bay State a business leader. Market dynamics will drive innovation, and new ways of conserving power are almost sure to follow.

Funny how it all ties together, isn't it, how technology and people, entrepreneurialism and innovation all rely on each other to be successful. We can learn from each other's ideas, no matter what sector of the economy we work in, no matter what title we hold.

We hope *Business Ingenuity* becomes a valuable tool for you and your company. Your feedback can help us fill that role. Please send your comments to: *Business Ingenuity*, 125 Walnut St., Watertown, MA 02172; skinjam@mediaone.net.

Tony Bogar



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A. PLEASE INDICATE YOUR BUSINESS/INDUSTRY

1 ☐ Manufacturing 2 ☐ Information Technology 3 ☐ Biotechnology
4 ☐ EnviroTech 5 ☐ Telecommunications 6 ☐ Financial Services
7 ☐ Other _____

B. YOUR ROLE IN BUSINESS EXPANSION

10 ☐ I make final decisions 11 ☐ I make preliminary recommendations
12 ☐ I assist in information gathering 13 ☐ I am not involved in these decisions

C. DOES YOUR COMPANY PLAN TO OPEN A NEW FACILITY/RELOCATE IN THE NEAR FUTURE?

20 ☐ Within 1 year 21 ☐ 2-3 years 22 ☐ 4 years or more 23 ☐ 5 years or more

D. WILL THIS EXPANSION/RELOCATION EMPLOY:

30 ☐ 10-19 people 31 ☐ 20-49 people 32 ☐ 50-99 people
33 ☐ 100-999 people 34 ☐ 1,000 people or more

E. NUMBER OF EMPLOYEES IN YOUR COMPANY

40 ☐ 1-24 41 ☐ 25-49 42 ☐ 50-99 43 ☐ 100-499
44 ☐ 500-999 45 ☐ 1,000-4,999 46 ☐ 5,000-9,999 47 ☐ 10,000 or more

F. ANNUAL SALES VOLUME OF YOUR COMPANY

50 ☐ Less than \$1 million 51 ☐ \$1 - \$9 million 52 ☐ \$10 - \$49 million
53 ☐ \$50 - \$99 million 54 ☐ \$100 - \$499 million
55 ☐ \$500 - \$999 million 56 ☐ \$1 billion or more

G. WHERE IS YOUR PARENT COMPANY LOCATED? (if applicable)

60 ☐ Massachusetts

61 ☐ Other: _____ (required) city/state

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BUSINESS 2 INGENUITY

Second Quarter 1998 Volume 1

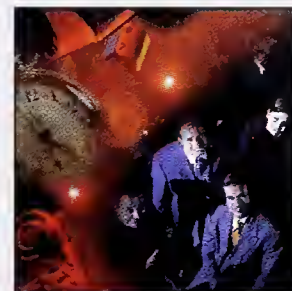
F E A T U R E S

Thinking Like the CEO

Babson College helps senior managers act like entrepreneurs

By Nancy Shepherdson

Executive education is a terrific concept in principle: Your senior people get the cutting-edge skills they need to lead your company to greatness in a global market. But, after the hype, you never know if executive education will really pay off. Babson College, a small school with a big reputation, makes sure the lessons last beyond the afternoon break. **Page 6**

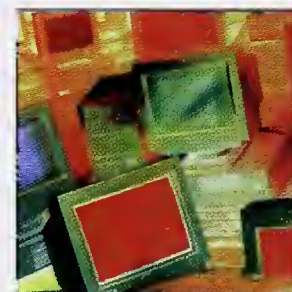


Wired for Growth

Booming Internet service providers face competition and consolidation

By Brian O'Connell

There's a new growth industry in Massachusetts, one that blends cutting-edge technology with old-fashioned customer service: Internet service providers (ISPs). Demand for Internet access is higher than ever, with large and small ISPs vying for the business. But there are several concurrent trends that will bring a new look to this young industry: capital, competition, and consolidation. **Page 12**

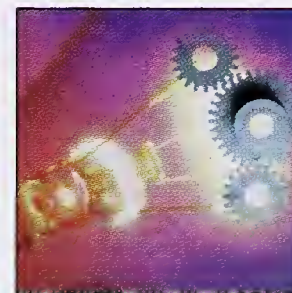


Market Power

Deregulation of the electric industry lets customers take control

By Brian Sullivan

Massachusetts has moved from being known for high electric rates to being a leader in reform and innovation. Deregulation means automatic savings right now, but even bigger payoffs in the future in the form of customer choice and company innovation. **Page 18**



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Dreaming Up Tomorrow's Computers

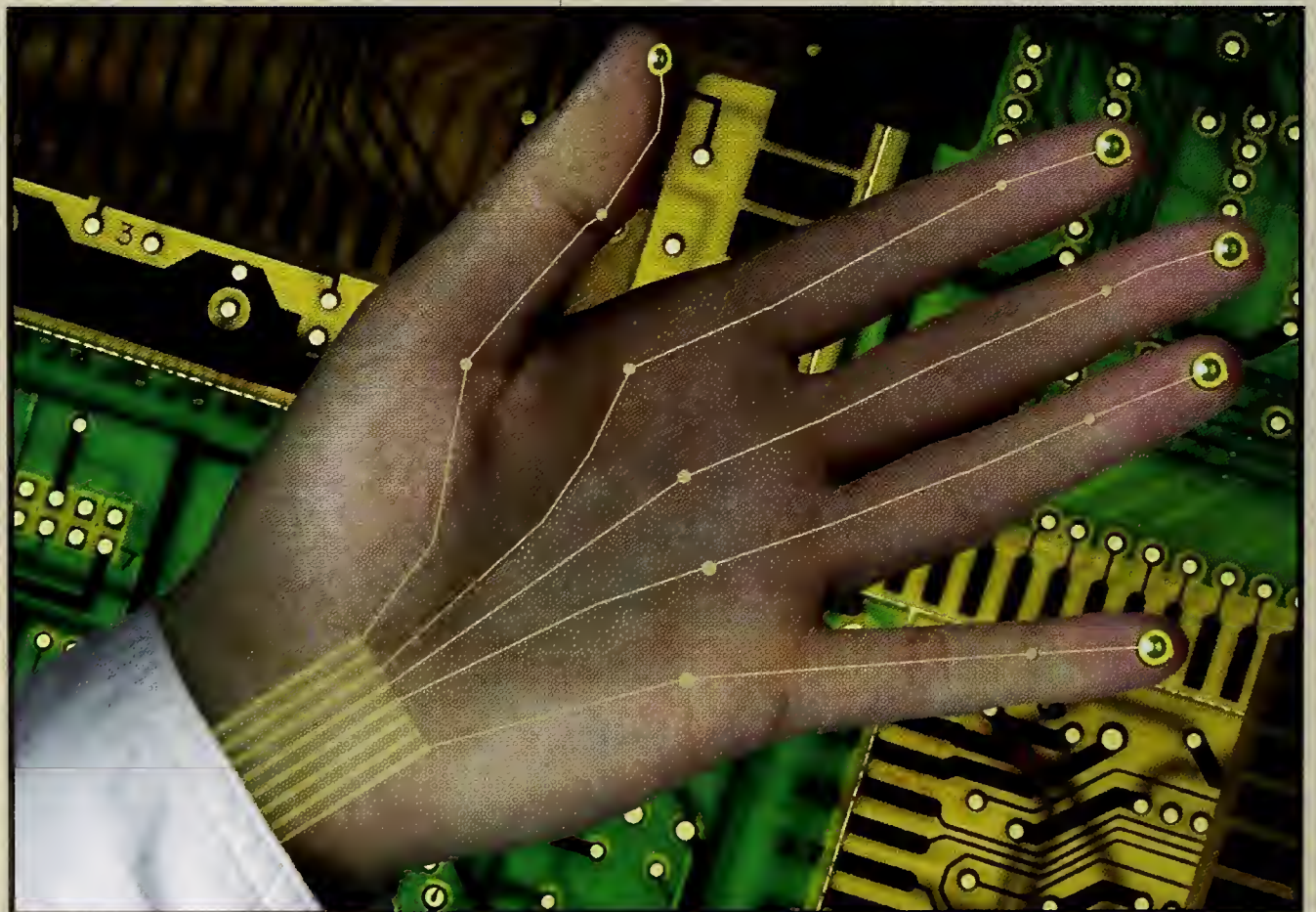
Even as some of us are still trying to get rid of the flashing 12:00 on our VCRs, the future is being fashioned in Cambridge at the MIT Media Laboratory. Here, researchers and students are involved in a variety of projects that bring what sounds like astonishing science fiction to life.



The driving principle behind what's known as "wearable computing" lies in the attempt to take computers out of their big plastic boxes.

In today's fast-paced society, quick and convenient access to information is becoming indispensable. The common sight of laptops, cell phones, and pagers at every airport makes that fact plain enough. Media Lab researchers are looking for ways to improve access to information not only by shrinking computers and making them more portable, but by rewriting the concept of "computer" altogether.

The driving principle behind what's known as "wearable computing" lies in the attempt to "take computers out of their big plastic boxes," says Media Lab spokeswoman Alexandra Kahn. Metallic fibers that conduct electricity can be woven into clothing just as well as they can be laid inside a heavy box. The lab is developing computing systems that can be incorporated into clothes,



shoes, and even "glasses, with a computer screen on the upper left-hand side of the lens that you can type into while walking," says Kahn. A "keyboard"—which is just a name for something that "takes a command from your finger and sends it to a chip"—can be embedded in a sleeve or a lapel; a circuit board that's about 2 1/2 square inches can be concealed anywhere.

There is one central dilemma facing developers of wearables: Where does the power come from? "Batteries are heavy," Kahn says. "So we're looking at alternative energy sources." Among the possibilities is a pair of shoes that would supply energy as the wearer walks in them. Researchers are even looking for ways to harness the electromagnetic energy present on the surface of the skin.

With one of these devices, you could check your e-mail on the way to the store to pick up a paper...or then again, maybe you wouldn't need to get a paper. The same idea behind wearable computing—that of taking computers out of their big plastic boxes—also drives researchers developing electronic paper and ink. The aim is to create "paper" that is actually a flat screen display, and "ink"—really ink molecules embedded with electronic particles—that can be flipped from black to white on the page to form any words the user pleases. The whole thing will be in the shape of an ordinary hardcover book, with pages "that have the look and feel of paper." Users will be able to download a volume of whatever they want, from the Bible to a daily newspaper, then read it wherever they please. It's certainly more comfortable than curling up on the couch with a PC monitor.

Another area of concentration for the Media Lab these days is in the field of smart toys. "Interactive" toys for children have come a long way since Chatty Cathy and Teddy Ruxpin. Projects in development now lean toward toys that children can truly interact with, not just watch, and that will "help kids prepare for the digital world they will be living in," says Kahn. The new toys will not merely perform preprogrammed tricks; they will "open up that black box inside Barney and show [children] how to make him walk across the room," including teaching the toy to move its legs, interact with what it encounters, and avoid bumping into the wall—priming kids for learning about such adult concepts as ecosystems and political processes, as well as, of course, computing systems.

Along with the development of the actual toys, the Media Lab is working at the industry level to get the computer and toy industries cooperating. Computer companies "are very excited. This is a huge new direction the market's going to take," Kahn says. The Media Lab is also establishing the standards that will be needed to make all kinds of toys able to interact—so Barbie can finally say hello to G.I. Joe.

Environmental Revisions, Brownfields Legislation Remove Obstacles

Governor Paul Cellucci has filed revisions to the Massachusetts Environmental Policy Act (MEPA) that should speed things up for Massachusetts construction projects. Cellucci promises that the changes to MEPA, which exists to evaluate the effect on the environment of certain larger proposed development projects, will make the state more "business-friendly" and will streamline the process of site development in Massachusetts.

With the revisions, builders will no longer have to submit multiple drafts of proposals in many cases. They also provide alternative ways to meet regulatory requirements. And they remove from MEPA review many projects that do not have significant environmental impacts, although other permitting processes will ensure review of those projects.

"There are lots of advantages to developing brownfields. They were formerly used as industrial properties and already have in place much of the infrastructure valuable to businesses."

—Todd Fernandez, General Counsel,
Department of Economic Development

Environmentalists say they are pleased by the revisions, which will make it more feasible for would-be developers to build on so-called "brownfield" sites, although the MEPA revisions encompass all developments, not just brownfields. Brownfields are parcels, many of them in urban areas, that were polluted, then often abandoned, by a previous owner. Faced with the daunting prospect of a lengthy and expensive cleanup, to say nothing of potential lawsuits, many developers have instead opted to build on "greenfields," or undeveloped suburban land, while the brownfields remain polluted and unused.

The MEPA revisions come soon after the state House and Senate passed separate brownfields bills. Both bills would provide tax incentives and liability relief for potential brownfields developers and lenders. A bill incorporating aspects of the proposed legislation from both branches is expected to be passed in the near future, and it should encourage construction on the state's 7,700 brownfields.

Massachusetts is already ahead of the pack on brownfields work. In 1993 the Bay State adopted a privatized cleanup policy, meaning that instead of the state overseeing the work, companies hire private cleanup professionals

to do the job. This way, "it's not necessary to wait for state approval at every stage," says Barbara Kessner Landau, Brownfields Coordinator for the Department of Environmental Protection, and the process can be completed more quickly.

"There are lots of advantages to developing brownfields," says Todd Fernandez, General Counsel for the Department of Economic Development. "They were formerly used as industrial properties and already have in place much of the infrastructure valuable to businesses," such as buildings, independent power sources, and an employee base in the area.

"One of the advantages we have [in Massachusetts] is the ability to get the cleanup process done," says Landau. "We have very experienced professionals who understand how the cleanup process works and can get it done as soon as possible and for less money." Also, a "covenant not to sue" can be reached by the state and new companies that pledge to clean up and develop a brownfield site.

Several brownfield sites have already been successfully redeveloped or are in the cleanup phase. The CambridgeSide Galleria mall in Cambridge sits on a former brownfield, and the former Fort Devens Army base, which closed in 1996, is now home to several businesses. In the planning stage is a new \$60 million mall and public park to be built on the site of a former Monsanto chemical plant, on the Malden River in Everett.

The MEPA revisions, which took effect on June 10, 1998, represent one more step in the state's effort to promote development that boosts the economy while it protects the environment.

Trading Option

Bentley College has given students a major advantage with its hands-on trading room, which just completed its first academic year in action. The room uses real equipment and real-time data to introduce students to risk management and financial analysis. Students can learn using the room's 10 Woodtronics trading desks, two Bloomberg terminals, a Trans-Lux ticker tape displaying S&P Comstock network data, and two Trans-Lux data walls that display currency prices and live news headlines. Finance majors are the main users of the trading room, but the experience also has helped those studying accounting, management, and marketing. And a glass-walled systems control office helps computer students learn about the infrastructure required to support such a facility. But undergraduate and graduate students aren't the only ones learning in the trading room, located on the college's Waltham campus. The college uses the trading room in customized training programs for corporations too.

Devices for Economic Development

Manufacturing has dominated the Worcester economy for generations, and a new initiative is betting that history of success can help promote the area's future. The Central Massachusetts Biomedical Initiative (CMBI), formed in March, will attempt to attract medical device makers from around the country and around the world. The medical device industry, say area leaders, could thrive in Central Massachusetts because of the area's manufacturers, hospitals, and academic institutions. In particular, the area has an existing base of manufacturing in fiber optics, plastics, and ceramics, all relevant to medical device companies, according to the *Worcester Telegram & Gazette*. CMBI partners include the University of Massachusetts Medical Center, Worcester Area Chamber of Commerce, the city of Worcester, Worcester Business Development Corp., Worcester Polytechnic Institute, Tufts University School of Veterinary Medicine, and Massachusetts Biotechnology Research Park. The initiative derives from a previous effort to attract biotechnology firms to the area.

Opportunity Knocks in Fitchburg

With a little help from the state, new economic opportunities are arising in the city of Fitchburg.

The state's Economic Assistance Coordinating Council has approved eight areas within the city—under Massachusetts' Economic Development Incentive Program (EDIP)—as Economic Opportunity Areas. This designation will allow Fitchburg to provide enhanced state and local tax credits, such as reduced property taxes, and other incentives for developers in these areas, which will in turn encourage new projects and business growth for the city. The approved areas include parts of Main Street and land near the Fitchburg airport.

In addition to the EDIP designations, the state will provide a \$1.5 million grant under the Public Works Economic Development program for the city to rebuild the Main Street parking garage. The garage is crucial to development in the city's downtown area.

A new express train from Fitchburg to Boston is also in the works, thanks to a bill before the House of Representatives. If the bill passes, \$11.5 million would be appropriated for a new train on the Fitchburg line, which would allow for an express route during rush hour. This would cut the travel time from Fitchburg to Boston from the current one hour, 45 minutes down to just over an hour.

Mass Ventures

Spins Off Repeated Success

Debra Shapiro

MASS VENTURES WAS FORMED IN 1995 WITH THE GOAL OF FOSTERING ECONOMIC GROWTH IN WESTERN MASSACHUSETTS BY PROVIDING FINANCING TO NEW AND EXISTING COMPANIES WITH CLEAR GROWTH POTENTIAL.



It's a good bet that few orthopedic surgeons know anything about Mass Ventures, but they have benefited from its work.

Until recently, doctors labored over exercise regimens for their patients, only to send them home with stick-figure drawings depicting just a fraction of what went on during their sessions. Now, thanks to the ingenuity of OmniMEDIA Systems Inc., which develops software for creating custom exercise programs, patients can take home videos showing them precisely what they need to do to get themselves on the mend.

But OmniMEDIA, based in Great Barrington, Mass., would not have been able to develop programs like this if not for the guidance and assistance of Mass Ventures, a venture development firm that provides management assistance, marketing services, contacts, and capital to companies in western Massachusetts.

"Mass Ventures offers a unique service at a competitive price," says Bernard Plishtin, President of OmniMEDIA. "They don't have the typical venture capital attitude of looking down their noses at you."

"When we got into deals for restructuring and for capital, they helped," he adds. "There was a lot of work to be done, and they did it professionally. And we had a lot of fun doing it."

A partnership of area businesses, the University of Massachusetts, and the Massachusetts Department of Economic Development, Mass Ventures was formed in 1995 with the goal of fostering economic growth in western Massachusetts by providing financing to new and existing companies with clear growth potential. Financing is done through the \$14 million Mass Ventures Equity fund, which is managed by Kestrel Venture Management, as well as other individual and institutional investors.

According to Mass Ventures President Tripp Peake, the idea came from a group of professionals and university officials led by UMass-Amherst Chancellor David Scott. The group decided the university should form a partner-

ship with regional businesses to promote business growth. The group believed a partnership would enhance the potential for "spinoffs" from the university's research and would also help the region's economy.

The Economic Development Council of Western Mass. (formerly the Pioneer Valley Economic Council) agreed to support the plan. The council, along with UMass and the state (the Department of Economic Development provided \$750,000 over three years), became the primary founders.

Within two years, Mass Ventures had a chief executive officer, a board of directors, investors, a venture fund, and a building in Hadley where start-up companies can locate either permanently or temporarily.

Unlike some consulting firms, Mass Ventures doesn't just spend a day or a week assessing a client's needs, then drop off its report and leave the client to work out the plan itself. Sharon Shepard, Vice President of Marketing, notes that she or a colleague may act as an interim vice president or CEO to advise the client for a year or more if necessary.

"We spend hundreds of hours lending in-depth assistance to help with the next move," she says.

Mass Ventures spent such time with Richard Huguenin, President of Millimetrix, an electronics company based in Hadley that develops devices such as concealed-weapon detectors for security firms and law enforcement agencies.

Huguenin needed Mass Ventures' help because he wanted to pull out of Millitech, the company he helped start 16 years ago, and begin a spin-off company. Peake helped negotiate a deal. "They're a great resource," Huguenin says. "They're a highly professional team."

The Mass Ventures approach has succeeded, and Peake has no plans to alter his way of doing business.

"Our future plans all revolve around helping companies on a one-on-one basis and making investments in companies from our fund," he says. "It's behind the scenes, hands-on, labor-intensive. But that's where we believe we can make the biggest impact." ●





THINKING LIKE THE CEO

Babson College helps senior managers act like entrepreneurs

By Nancy Shepherdson

Executive education is a terrific concept in principle: Your senior people get the cutting-edge skills they need to lead your company to greatness in a global market. But, after the hype, you never know if executive education really will pay off. In fact, it is something of a miracle if your people haven't forgotten everything they learned a week after they get back.

At Siemens Nixdorf Informationssysteme AG, on the other hand, top management has at least \$250 million worth of proof that their executive education program is working.

After attending a customized program in Germany presented by Babson College in Wellesley, Mass., a unit manager at the huge German information technologies business was able to propose a value-selling concept to a client and place a \$250 million point-of-sale system. Exactly how the deal was made is unimportant. What is salient is that this type of inventive thinking about price was extremely rare outside the executive suite before Babson College became involved, says Neal Thornberry, a Faculty Director of the School of Executive Education. "We are trying to get managers [at Siemens] to be less budget-focused, less focused on smooth and efficient operations."

Instead, the program Babson faculty designed exclusively for

Siemens gives executives the tools to go after new opportunities in their specific markets and develop the resources they need to capitalize on them. In the course of the program, participating managers create new product and service ideas and develop implementation plans.

What makes this unusual is that it is not just a training exercise. Quite a few of the ideas developed in Babson workshops have become reality at Siemens, including an internal venture capital program. And because 300 unit managers have now been through the program, entrepreneurial thinking is beginning to permeate the Siemens culture.

Such customized education for executives is becoming increasingly common. "Companies simply need programs designed for their specific needs," says Karen Albert, an executive education consultant and publisher of the *Albert & Co. Executive Development Programs Guide*. "That's why they're demanding customized programs more often." Babson just takes the idea of "customized" a giant step forward, enabling companies like Siemens to radically remodel an entrenched culture without losing the things it does best.

Tailored to Fit

Sounds good, right? Who wouldn't want a company with more market-oriented, innovative executives? Sorry. You can't phone and order the "Siemens program" from Babson. Even if you do, Thornberry and his fellow faculty will insist on spending time with you to uncover what your needs are and design (or suggest) a program to fit them. "We simply don't get involved in bidding a set program," notes Thomas E. Moore, Dean of the School of Executive Education.

This kind of allergic reaction to the education business as usual may have its origin in the history of Babson College. Founded in 1919 by a financial entrepreneur who predicted the 1929 stock market crash, the school was intended to teach college graduates how to run a business. Executive education began about 50 years later.

If customized programs do not appeal, Babson also offers a series of open-enrollment, non-credit management programs on campus as well as both traditional and non-traditional MBAs. Lucent Technologies is now offering its own, customized MBA program through Babson.

In all of its customized programs, the Babson approach is really nothing more than following its own advice: Listen to your customers and give them exactly what they need (not necessarily what they want). They call it "sequential executive education," intended to move participants from a more coherent understanding of the big picture to action plans for improving actual performance. "I left Babson with so much confidence

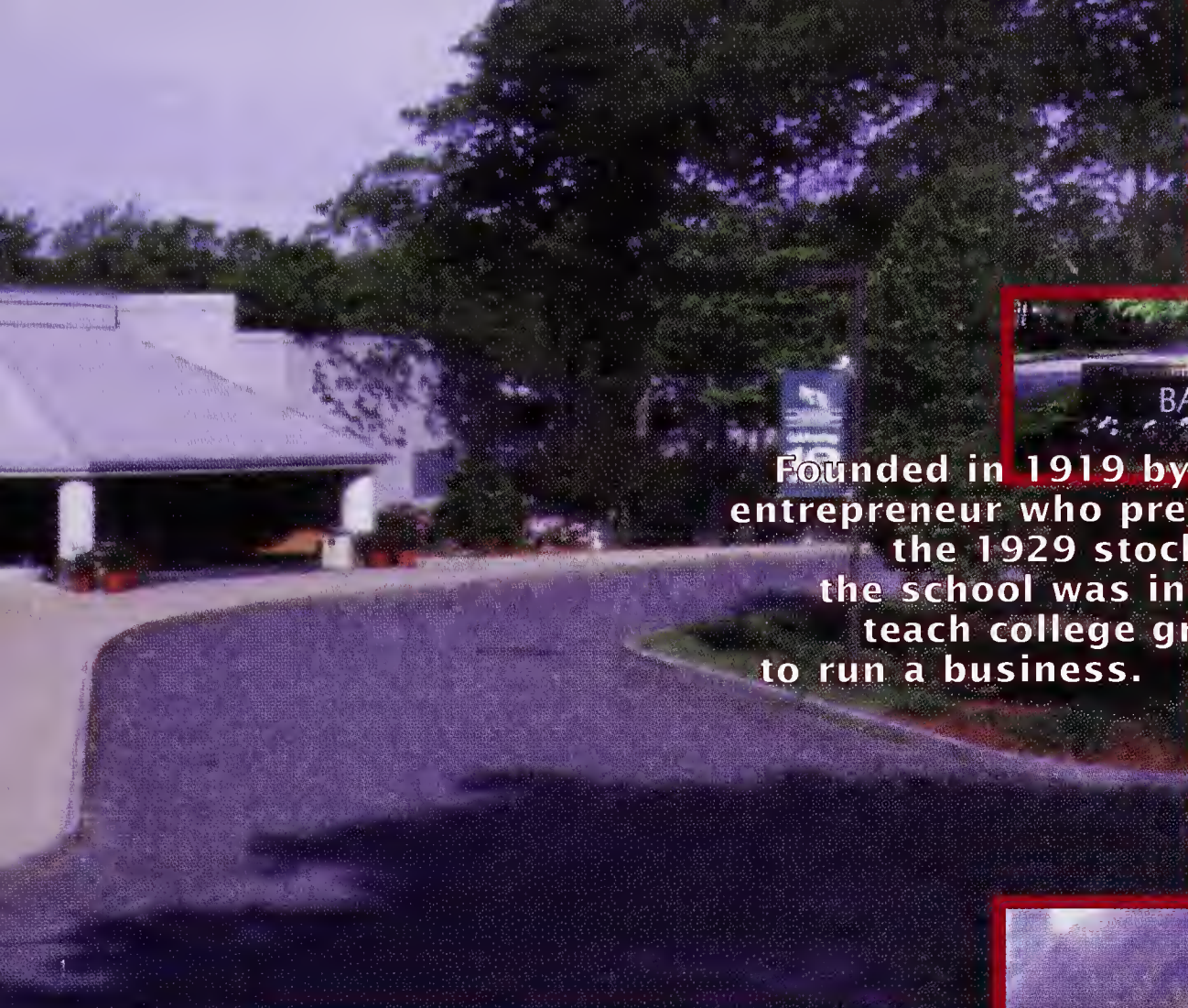


about my company," says Tammy Stapp, Area Director of the Des Moines office of Olsten Health Services. "More than that, though, was a renewed sense that I can contribute to the strategic success of my company."

The process usually begins with an invitation to senior executives to visit Babson for a half day and work with professors on real problems. A substantial number of the faculty are current or former business owners or consultants, so the executives "usually leave knowing that what we do at Babson is very different," Moore says.

This listening process, which elicits raves from participating companies, continues throughout the relationship. Faculty members are expected to take the time to understand the company's challenges and its competitive environment. Such a commitment is fairly rare, even at business schools that offer customized education programs, suggests Laurie Boucher, Assistant Vice President of Training and Development for Olsten Health Services, who considered several competing programs before choosing Babson. "Other schools don't seem to want to do this as much."

Perhaps that commitment accounts for at least some



KATHY TARANTOLA

Founded in 1919 by a financial entrepreneur who predicted the 1929 stock market crash, the school was intended to teach college graduates how to run a business.

KATHY TARANTOLA

of Babson's success as a provider of customized executive education. *Business Week* reports that Babson generated a higher percentage of its revenue from customized programs than any of the other top 20 non-degree executive education programs. Its revenues, for both custom and open programs, amounted to \$7.5 million in 1997, more than double what they were just five years ago. Surprisingly, the cost of Babson's customized education is only about \$12,000 to \$14,000 per day, about half what it is at other top business schools. The up-front needs assessment work, however, is not included in the price.

"Doing one program with us is prohibitively expensive," admits Phil Dover, a Faculty Director of the School of Executive Education, who is also a professor of marketing. "We would rather form a long-term partnership with client companies. But not forever—our goals are to create a community of practice within a company and help them become self-sufficient with it."

At Hartford Commercial, a division of The Hartford, 15 top executives were extensively interviewed in the needs assessment phase. In addition, a Babson consultant extensively questioned sales agents to



KATHY TARANTOLA

"What we add is a neutral place, a neutral facilitator, new ways of thinking about problems, and we coach you through the thought process."

—Thomas E. Moore, Dean,
School of Executive Education

develop an original case study based on the company. The customized case, referred to as "Integrity Insurance," fooled no one for long. "It was, in fact, really a hit with managers," says Liz Woolf, Director of Training and Development at Hartford Commercial. "They appreciated a chance to work on things they face every day."

Real Time, Real Problems

Babson workshops themselves are highly action oriented, with most participants working on real company problems at least some of the time. "It wasn't just books and talk," says Steve Wachtel, a Regional Vice President for Hartford Commercial, New York City. "We were using real-world cases, and I found I walked away with something I didn't have before." Wachtel is doubly amazed, no doubt, because he's a top executive who already had an MBA and thought he'd only hear riffs on concepts he already knew. "I actually used [what I learned] just a month later to map out my competitive situation during strategic planning."

Similarly, before Pitney Bowes Product/Marketing Manager Susan Garvey spent a week at Babson College, she wouldn't have given some of her gut decisions a second thought. One in particular involved only a quarter page of advertising in the company catalog, promoting a line of wall planners her group had created. What possible difference could it make?

"It wasn't until I learned to evaluate each line financially rather than emotionally that I understood the decision really mattered," says Garvey. At Babson, she

learned the importance of analyzing the "invisible" financial impact of such variables as competitive pressure, opportunity cost, terms, inventory, and the like. "When I saw that red number [projected loss], I dropped the whole line." That's exactly the kind of independent thinking top management at Pitney Bowes had wanted to foster, says Chuck Presbury, Director of Executive Learning and Development at Pitney Bowes and the instigator of the program.

Whether Babson's flexible, company-focused approach is consistently more effective than traditional or "off the shelf" executive training programs is open to debate. "It's a riskier approach [than choosing to buy a packaged set of skills], but the payoff may be greater," notes Bob Fulmer, executive educator and co-author (with Al Vicere) of *Leadership by Design*, published this spring by Harvard Business School. "Going with a big name school is a little bit like going with IBM in the old days—no one is going to get fired for choosing IBM. But you might get something more suited to the company's needs if you really had the time or patience to check out the alternatives." Indeed, the Babson program is intended less to enhance the skills of individual managers than (in the words of a Babson executive summary on the issue) to "transform the capabilities or culture...of an organization through management (re)education."

For one thing, new ways of thinking are fostered by the faculty's intimate knowledge of their company. Managers in such an environment find it possible to get beyond stock solutions with relative ease, no matter whether the program is a few weeks or many months long. "It's so subtle, interwoven through the whole nine months," notes Garvey. "It was obvious that [the faculty] had spent time at upper levels; some of them even knew my boss. As a result, they were able to share how the CEO looks at things and would pull out parallels to Pitney Bowes in case studies."

Surprisingly, the cost of Babson's customized education is only about \$12,000 to \$14,000 per day, about half what it is at other top business schools.

Learning to Take Risks

Rather than creating cases from scratch, Pitney Bowes used relevant Harvard Business School cases from which to learn. The process was customized by letting teams of managers choose a "Business Challenge," a real Pitney Bowes issue. Teams work on their challenges throughout the training process, then present their solutions to "senior management and an auditorium-full of important people," says Presbury. Ideas emerging from the Babson program are often supported by managers' original research; audience members have learned to take them seriously. Promotions often follow.

Because of its visibility, ambitious people at Pitney Bowes are clamoring to get into the program. It is now perceived as a key step toward promotion, especially for



KATHY TARANTOLA

managers with strong technical backgrounds who have the potential to handle larger responsibilities.

The situation is somewhat different at Hartford Commercial, which is making changes to create a more customer-oriented culture. At the same time, senior management wanted regional vice presidents to take more responsibility for strategic planning. All of this promised to be a radical departure from business as usual. The first wave of prospective participants, scheduled for September 1997, was understandably reluctant. "A lot of them were pushing back. They didn't want to go," remembers training director Woolf.

Minds were changed by the Babson experience, which emphasizes taking discussions far beyond the "right" answer. Participants are encouraged to air their views and challenge everything. "What we add is a neutral place, a neutral facilitator, new ways of thinking about problems, and we coach you through the thought process," says Moore, the school's dean. Rather than teaching theory or general principles, Babson teaches how to risk attacking real problems.

How well that lesson is embraced was made clear in a Babson session in which Hartford senior executives made short presentations about planned strategies to participants. Even though it was only the second day of the week-long workshop, the management group would not accept the concepts of one of the executives and persuaded him to change them. "They already felt empowered [by the Babson program]," says Woolf, who is excited about the incident's implications for Hartford's desired culture change.

Follow-Up or Perish

Another key Babson notion is that training is useless if the manual serves only to fill shelf space. Ideally, each program Babson designs contains one or more elements designed to reinforce its value once the participant returns to the office.

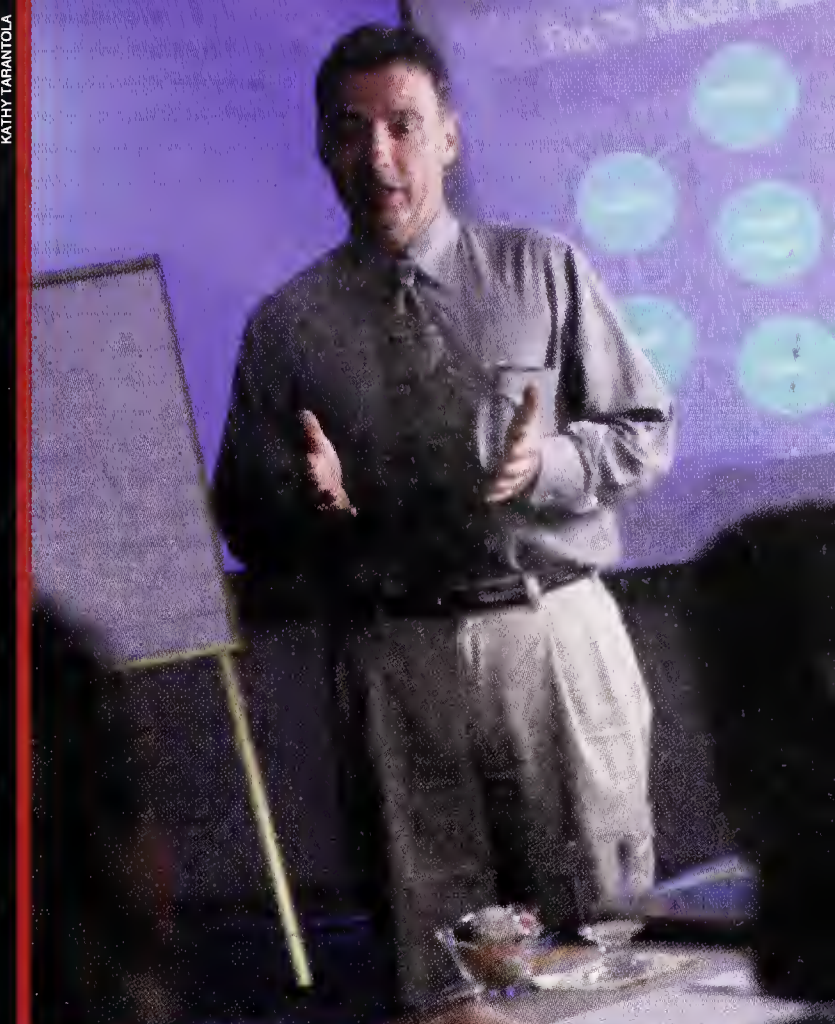
The most important—and unusual—of these is their strong suggestion that top executives take part in at least a few days of the workshops. While honchos almost never feel they need training themselves, Babson faculty encourages buy-in by asking them to lead some sessions. (That's how the Hartford exec found himself in hot water.) "Call it backward training," says Thornberry, who is also an associate professor of management at Babson and leads many of these programs. "We need to ensure that they're integrated with the material so that they can provide appropriate leadership once the training is over." Most participants also return to work with some version of Babson's "Executive Road Map," designed to help participants set objectives and do action planning.

Frequently, solutions to business problems that have

been bothering them are already partly worked out by the time they return to the office. Participants are encouraged to discuss these new goals and plans with their superiors, in order to minimize resistance to new ways of doing business. Many times, Babson's work also includes telephone interviews with participants after the sessions to assess performance and changed behaviors. Moore hopes the interactivity of the Internet will soon make this process easier, as well as provide forums in which past participants can exchange ideas and experiences.

If that happens, the effects of Babson's executive education could multiply. One company, like Siemens, could not only develop its own \$250 million program; it could share the concept with other participants, who could then pass it along to still others. That type of executive education—call it an extension program, if you will—most certainly can pay off. ●

Nancy Shepherdson is a freelance business journalist.



"We are trying to get managers to be less budget-focused, less focused on smooth and efficient operations."

—Neal Thornberry, Faculty Director,
School of Executive Education



Boo



wired for growth

Internet service providers face competition and consolidation

by Brian O'Connell

There's a new growth industry in Massachusetts, one that blends cutting-edge technology with old-fashioned customer service: Internet service providers (ISPs). From Berkshire County Network in Adams to Xensei Corp. in Quincy, the Bay State is crammed with ISPs eager to leverage Bay Staters' eagerness to log on to the Internet.

Demand for Internet access is higher than ever, with large and small ISPs vying for the business. According to the *Boston Globe*, large ISPs, like America Online, control Internet access for 81 percent of the nation's 23 million Web users. But smaller ISPs are growing quickly, seeing an average increase of 152 subscribers monthly.

All of that is good news, but there are several concurrent trends, feeding into each other, that indicate the future will bring a new look to this young industry in just a few years: capital, competition, and consolidation.

Customers and Capital

When Governor Paul Cellucci announced his August 1997 decision to eliminate the 5 percent Internet sales tax (a move that is expected to save local businesses and consumers \$8 million annually), he didn't go to Beacon Hill or to a posh industry luncheon. Instead, he went to computer professionals themselves, announcing the decision at the MacWorld Expo in Boston. Conference attendees applauded wildly as Cellucci told them the tax "was an economic suicide wish" and that Massachusetts was "sending a message to Internet service providers that the state wants them to stay and be treated well." Not surprising from the first Massachusetts governor who put a PC on his desk so he could send e-mail and check the Web for key news articles, the person who was awarded the "Most Effective Policy Maker" award by the Massachusetts Telecommunications Council.



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The Bay State Becomes the Telecom State

Massachusetts has been a leader in telecommunications since the days of the telegraph and the telephone, and it still leads the industry today, according to research recently conducted by the Massachusetts Telecommunications Council (MTC) and the University of Massachusetts.

The Bay State is where Samuel Morse invented the telegraph, and Alexander Graham Bell made his first telephone call in Boston. In the past few decades the state has been a pioneering location for fiber optics and, of course, development of the Internet. Currently there are more than 1,000 telecommunications organizations that collectively employ more than 100,000 workers.

And the telecommunications industry in Massachusetts is experiencing phenomenal growth. According to a report titled "Connection to the Future: An Analysis of the Telecommunications Industry in Massachusetts," industry sales nearly quadrupled, rising from \$10.9 billion in 1993 to \$42.5 billion in 1996. Employment in the industry grew 61 percent, adding more than 34,000 workers in the same time period. To put that into perspective, nearly one out of every five jobs added in Massachusetts over those three years was in telecommunications.

The report breaks the telecommunications industry into five sectors: manufacturing; telecommunications software/network integration; services; wholesale communications equipment; and construction and consulting.

Telecommunications manufacturing in the Bay State—which includes such things as fiber optics, hubs, routers, switches, and equipment for telephone, television, and radio—is clearly the leading sector. From 1993 to 1996, sales increased more than 600 percent. This sector accounts for 47 percent of the total telecommunications sales in Massachusetts and 36 percent of the industry jobs.

The MTC attributes Massachusetts' leadership role in the telecommunications industry to an "infrastructure of world-class research universities and institutions; a culture of commerce that has traditionally materially encouraged entrepreneurship, valued knowledge, and nurtured innovation; and access to investment capital."





Large players like Bell Atlantic control almost 90 percent of the phone lines in Massachusetts, and they provide access and service to the smaller ISPs.

Massachusetts is a great place to set up shop for ISPs. The universities and the high-tech industry provide both talented employees and Web-savvy customers.

"It's such a new industry," says Steve Johnson, Telecommunications and Software Industry Specialist at the Massachusetts Office of Business Development (MOBD). "With the area a high-tech breeding ground for talent from schools like the Massachusetts Institute of Technology and Worcester Polytechnic Institute, and a tech-savvy population that is demanding better and faster Web services, the potential for entrepreneurial growth in the ISP industry here is tremendous. A lot of these companies are opening their doors for business and taking off."

Most industry observers agree with that assessment, and they add another factor that contributes to the growth. More sophisticated marketing techniques are attracting—and maintaining—Internet customers every day. "A lot of ISPs have come equipped with not only engineering talent, but with business and marketing talent as well," says Shayne Gilbert, President and CEO of Boston-based Silverweave Interactive, an on-line marketing firm and part of Boston's Cyber District Association (see "Cyber Community," page 16). "They're learning that customers want a lot of handholding and extra service when using the Web. The ISPs are recognizing that once you get the residential accounts to stay with you, your business is going to really explode."

Venture capitalists, who recognize a growth industry when they see one, have climbed aboard the bandwagon. Software and Internet investments in Massachusetts totaled \$87.9 million in 26 deals in the last quarter of 1997, with companies like Xedia, a Littleton-based maker

of Internet hardware and software, getting significant amounts of funding, in this case \$12 million.

Competition

But customers and capital don't tell the whole story of trends in this industry. ISPs face tough competition from traditional phone companies that control telephone lines and offer their own Internet services. Such control has led to the rise of middle-stage companies that provide the lines and troubleshooting for smaller ISPs.

Large players like Bell Atlantic control almost 90 percent of the phone lines in Massachusetts, and they provide access and service to the smaller ISPs. If an ISP buys service from Bell Atlantic, the ISP must rely on Bell Atlantic to correct any problems, explains Tim Sadler, President of Hyannis-based Intramedia, an ISP consulting firm.

Cambridge-based XCom Technologies (which in April announced its acquisition by Level 3 Communications) saw the problem and offered a solution. It went into the business of providing data services to local ISPs. XCom hopes to snatch some of the telecom business by offering unique advantages, like a single local-call rate in the state, from Pittsfield to Provincetown, and no additional charges for hardware. ISPs are attracted to companies like XCom, who call themselves competitive local exchange carriers (C-LECs), because the ISPs can dump virtually all of their hardware headaches on the C-LECs in exchange for a reasonable telephone line fee. ISPs also like C-LECs because they create competition.

Although C-LECs represent only 1 percent of the ISP business in Massachusetts, they pose a significant threat to companies like MCI and Bell Atlantic. Late last year, Bell

Atlantic offered a rare acknowledgment that the company has been slow in delivering faster Internet access, telling the *Boston Globe* that it "had just begun to offer advance data services to Internet access providers." A spokesperson also told the newspaper that the company's arduous detour into long-distance phone service had caused Bell Atlantic to take its eye off the ball in the ISP marketplace.

"C-LECs are like manna from heaven," says David Skinner, CEO of Xensei, Inc., a Quincy-based ISP. "The ISP business is not some Steve Jobs-garage deal where you're up and running with a PC and a phone line. It's incredibly capital intensive with a lot of legal and regulatory problems to face."

Because of the heavy costs involved, ISPs pay special attention when new technology can offer more affordable ways of doing business. One Massachusetts company,

Analog Devices of Norwood, recently rolled out just such a product, one that promises to make Internet access cheaper and easier by installing a high-speed digital modem onto a single silicon chip.

The chip, which holds 160 kilobytes of memory, uses a digital signal processor to beef up modem performance without interfering with the additional chips used to operate the modem. The processor can be customized to handle almost any data transmission, and because it sits on one microchip, it is significantly less expensive than most current multichip modems. ISPs are excited about the Analog chip because it should help them increase the number of phone lines to customers. Currently, ISPs pay top dollar to rent additional office space to store their hefty supply of modems. The chips' big power and small size could allow ISPs to increase their modem storage capacity, thus

Cyber Community

A great working environment, a chance to be part of a team, and an opportunity to be creative, all while on the cutting edge of an emerging industry. It's not a job description; it's a place description. It's what people who work in Boston's Cyber District have to say about the city's newest commercial quarter.

In the beginning, cheap rents and funky spaces offered by the old warehouses and former industrial buildings along Boston's Fort Point Channel attracted a handful of Web designers and Internet specialty firms.

They were small concerns, with a handful of employees looking for large open spaces, affordable rents, and an ability to reach downtown Boston in just a few minutes. In time, Shayne Gilbert, President and CEO of the on-line marketing company Silverweave Interactive, looked around and realized that a community of sorts had formed.

Described by friends and fellow Cyber District members as being a little "competitive" when it comes to tout-ing Boston's charms, Gilbert believed the group should promote itself to the city and the world. The result was the creation of the Cyber District Association, which is a loose confederation of businesses, artists, and photographers who either call the Cyber District home or are involved in interactive media.

"Boston wasn't getting the recognition it deserved in a lot of ways," Gilbert says. "There's a lot of hype about Silicon Alley in New York and Multimedia Gulch in San Francisco."

So Gilbert took her marketing expertise and put on the push to bring the Cyber District to light.

One of the people who got on board the project was Steve Johnson, Telecommunications and Software Industry Specialist with the Massachusetts Office of Business Development.

Johnson notes that other parts of the country promote their own versions of the Cyber District, but none of them

have the access to the kind of educational, research, and cultural resources available in Boston. "We have the highest concentration of software specialists per capita of anywhere else in the country; we have the highest concentration of telecommunications specialists; we have the highest concentration of Internet and Web designers per capita; so it makes sense to have a Cyber District."

All those emerging companies in the same area could lead to nasty competition, but Gilbert and others say that isn't the case.

"We respect boundaries," says David Rose, president of the Interactive Factory. "If one company has a really solid, long-term relationship with a particular client, we're not going to come in and sabotage that."

What's most likely to happen, says Kurt Federow of Double Decker Studios, is that different companies in the Cyber District will collaborate on projects. "No one company has all the expertise," he says.

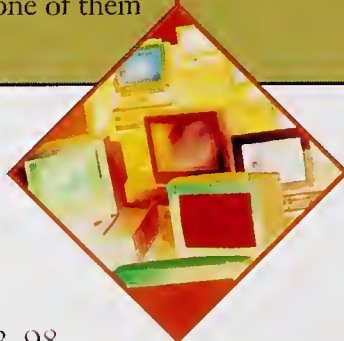
Gilbert says the association has allowed the members of the Cyber District to form strong bonds and learn each other's skills, so small companies can grab big contracts knowing they will be able to call on other Cyber District firms for support.

"Sharing complementary skills and talents enables one company to take on a large project that has more components than they could handle alone," Rose says.

District members also network through activities that help build a sense of team and sharpen skills. Kelly Blozie, Director of Marketing for Centermedia, Boston and the district's industry and events coordinator, says the workshops range from Web-based commerce discussions to a bowling league.

Not to mention stress reduction. "We're having a workshop on stress reduction through yoga, and I, for one, am looking forward to that," Gilbert says.

—Brian Sullivan



increasing access times without spending more cash.

Consolidation

Innovative thinkers like XCom and Analog Devices may give smaller ISPs more control and allow them to compete against the big guys, but ultimately the tidal wave of mergers and acquisitions in the industry should continue unabated. This past January, RCN Corp. shook up the local ISP industry with a \$110 million purchase of two service providers, UltraNet Communications of Boston and Virginia-based Erol's Internet Inc. That gives RCN an additional 325,000 customers in the Northeastern United States. Backed by the venture capital firm Peter Kiewit & Sons, RCN is expected to inject a whopping \$750 million into a new fiber-optic network that stretches from Virginia to New England. That would give the company a tremendous advantage over smaller competitors, whose economies of scale could reach into those levels.

"These things cost a lot of money, and, frankly, the little providers don't have it," explained Erik Paulak, an analyst at the Gartner Group, in a *Computerworld* interview in late February. Gartner estimates that the ISP industry has crested at 4,500 companies nationwide and that consolidation will weed out the weaker players. By 2002, Paulak predicted, only about 500 ISPs will be left standing.

"They're called Tier One, Tier Two, and Tier Three companies," explains Lowell Gray, President of Lynn-based Shore.Net and a driving force in the creation of Lynn's own Cyber District. "Tier One companies are outfits like AT&T and MCI. Tier Two companies, like us, own regional telecommunications networks that connect the small and mid-size business community to the Tier One backbone. Tier Three are the mom-and-pop shops that operate in small towns and buy all their network capacity from Tier Two or Tier One providers. They're at the bottom of the food chain and are beginning to be swallowed up by Tier One and Tier Two companies. Many of the smaller guys see the handwriting on the wall and are, in fact, actively looking to sell."

That trend should hold firm in Massachusetts, even as the demand for Internet access continues to skyrocket. "I think we're already seeing the Tier Three companies being bought out here in Massachusetts, with some of the Tier Two companies not far behind," Gray says. "Good regional Tier Two companies have an opportunity to succeed and remain the dominant suppliers to businesses if they can offer the quality Internet technologies available from Tier Ones with the focus on responsive local customer service."

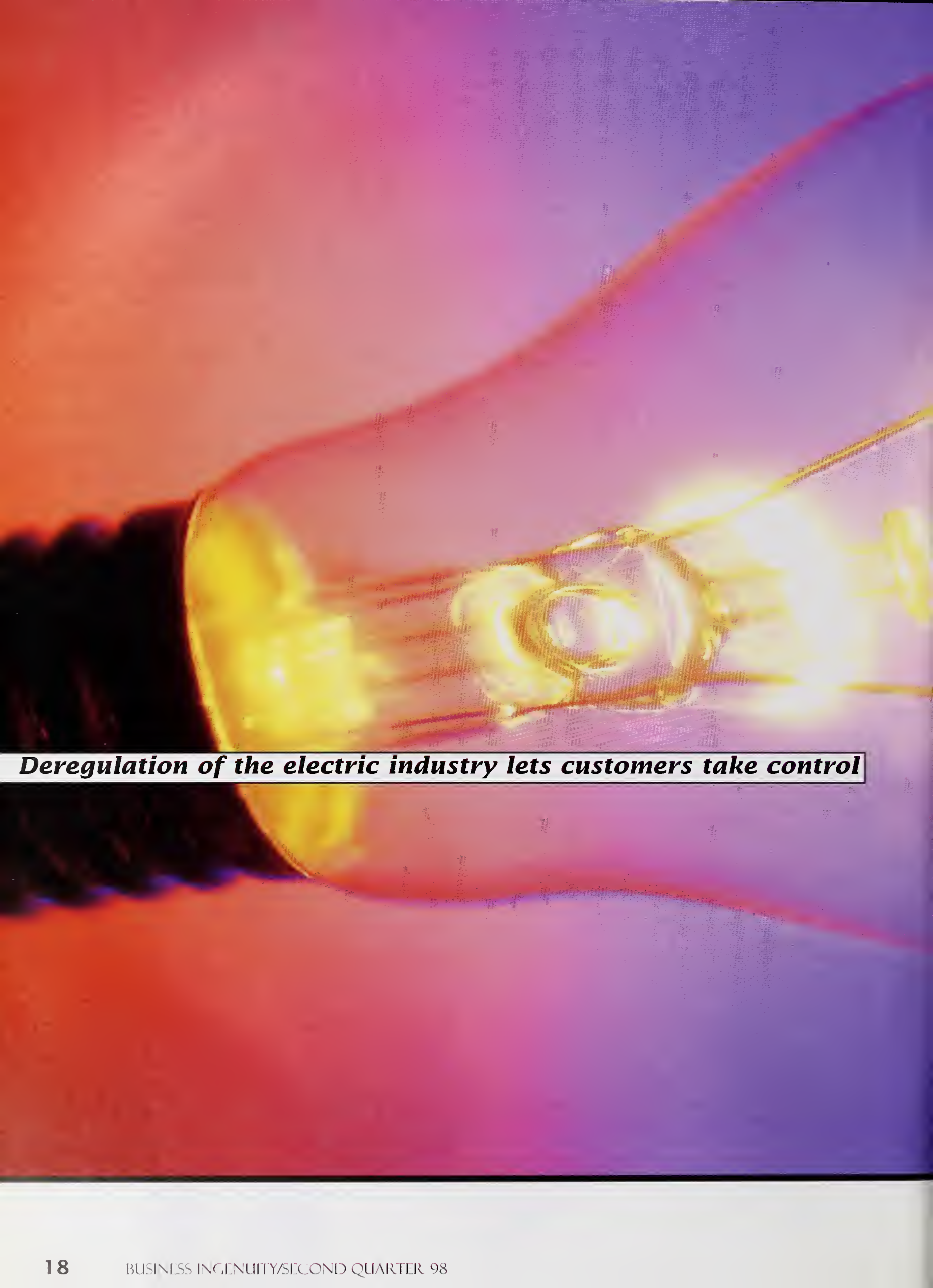
For now, it seems, demand for Internet access services will grow, even though that growth will occur in a consolidating industry, one that thrives on both new technology and old-fashioned customer service. ●

Brian O'Connell is a freelance writer based in Frammingham, Mass. His article on EMC appeared in the first issue of Business Ingenuity.



The Gartner Group estimates that the ISP industry has crested at 4,500 companies nationwide and that consolidation will weed out the weaker players. By 2002, only about 500 ISPs could be left standing.





Deregulation of the electric industry lets customers take control



Market power

by Brian Sullivan

It was no secret that Massachusetts had some of the highest electric rates in the country. It was, in fact, the opposite of a secret. It was a common complaint among business leaders.

The cost of electricity in Massachusetts "has always been a negative," says Howard Foley, President of the Massachusetts High Technology Council. "For 17 years, my board of directors would ask me, 'What can we do about these electricity costs?' I would always say, 'Nothing, unless you want to spend a lot of money, hire a lot of lawyers, and argue with the regulators.'"

Those costs have prevented Massachusetts from being able to compete on level ground with other parts of the

country where cheap power is available. "It hurt us in the location decision process, and it hurt the people who are here who are paying the big bills," Foley says.

But now the word is out that the playing field has changed.

On March 1, Massachusetts went from having some of the highest electric rates to being a leader in reform and innovation. On March 1, the state's "first in the nation, across the board" deregulation of its electric power industry went into effect, preceding President Clinton's call, at the end of March, for the rest of the country to be deregulated by 2003.

"This is good news for Massachusetts," Foley says. "I think every person who lives and works in the region will be better off because of it."

There is also widespread belief that deregulation will become an engine to further boost the state's already booming economy.

"It has been characterized as the most important economic development package passed by the legislature in several years, and I guess I would have to agree with that," says John Howe, Director, Electric Industry Affairs, of American Superconductor Corp. in Westborough, Mass. Howe was the chairman of the state Department of Public Utilities under then-Governor William F. Weld during the early stages of the deregulation draft process.

"Deregulation will not have an immediate, overnight effect, but in time its effect will be pervasive. The benefits will be seen not only in lower electric rates but in a degree of technological innovation that has heretofore been unseen," Howe predicts.

"Massachusetts is a world leader in high technology, where innovation drives the marketplace," says David O'Connor, Commissioner of the state Division of Energy Resources (DOER). "The new law creates the opportunity for Massachusetts to become a national and a world leader in the new competitive electric industry."

Even though the full effects of deregulation may be a few years off, there has already been an immediate benefit for customers.

"First of all, every electric bill is 10 percent lower than it was prior to March 1, and another drop of 5 percent is scheduled for September 1999," says Thomas J. May, who is Chairman, President, and Chief Executive Officer of Boston Edison. "On average, that means savings ranging from \$450 million to \$600 million per year. If you totaled up all the recent tax cuts, the savings from deregulation is even greater."

By the time that first week of deregulation had ended, the Massachusetts customers of New England Electric Systems saved at least \$3 million, says Karen Berardino, spokeswoman for the Westborough-based company. This includes commercial as well as residential users.

But it is not just the mandated rate cuts that have the business community in Massachusetts excited. It is the potential impact generated by the concept at the heart of deregulation: a free and open market.

Monopoly Power

Ironically, it was the failure of a free and open market that was responsible for the regulation of the power industry throughout the country in the first place. Fledgling power companies, struggling with new technologies and rising costs, couldn't handle the volatile fluctuations of a free market system, and the government had to step in to stabilize the system. The result was an industry that was heavily regulated right down to a captive customer base.

The situation under regulation was "a vertical monopoly," according to Michael Best, Professor and Co-Director for the Center for Industrial Competitiveness at the University of Massachusetts at Lowell. Best recently completed a report on the region's power system. Under that vertical monopoly, one company controlled the generation, transmission, and distribution of power, he explains.

Over time, however, advances in generation and delivery systems eliminated the need for regulation of the distribution of power. According to histories of regulation written by the state's Department of Public Utilities, the system was essentially designed to keep people from being stranded without power when some fly-by-night company got in over its head and collapsed financially or had its wires burn on the poles. But traditions die hard, and the industry remained heavily regulated even though it probably didn't need to be.

While Best doesn't agree with the specifics of the current deregulation law, he does agree that the vertical monopolies had to be broken up and the way has to be cleared to bring in real competition to promote both cost savings and technological advances.

Best warns that, as with a large transition in any industry, there may be unintended consequences, so he considers the current law just the first step. He says he would have liked to have seen the subject studied more before the law was enacted. "From my point of view, it will need to be revisited," he says.

But for those in industry and business, there was no reason to wait.

"Academics is great, but if you're going to [mess] around, it is going to take another 10 years," says Robert Ruddock, Executive Vice President for Energy and Environmental Programs at the Associated Industries of Massachusetts (AIM). "It comes down to this: Do you want jobs or don't you? The state should be proud that it is one of the first in the nation to do this, and it ought to





***The heart of deregulation, and the
real promise, is customers' freedom to
buy power from whomever they want.***

be held up as an example of a positive tool for attracting jobs and businesses."

Power of Technology

Howe, of American Superconductor, is confident the law will stand the test of time and more than deliver on its promise. The most exciting aspect of deregulation, he says, is not the potential savings, but the technological advancements that will now be possible—and probably necessary for companies to remain competitive.

Smart meters are one example. Smart meters monitor a customer's electric use on a nearly constant basis, rather than just once a month or whenever the meter reader comes out to check. "Essentially, the meters we're using today are almost identical to the meters that were being used in the 1930s," Howe says.

By constantly scanning electricity use, the meter can communicate that information to power distributors and suppliers, which can then tailor a rate package so that customers get the cheapest power available. The meter can also tell the customer to lower power use when rates are

high. Howe says the cost of power "can be less than a penny per kilowatt hour on a mild day in May and as much as 50 cents per kilowatt hour during a heat wave in July." The meter could regulate your power consumption in July so you don't end up paying for expensive electricity, Howe says.

That isn't possible in a regulated environment because prices and rate schedules are set in advance and based on "average consumption practices."

"The problem is, not everyone is an average customer," Howe says.

Power to Choose

The heart of deregulation, and the real promise, is customers' freedom to buy power from whomever they want. Even before deregulation became a reality, Boston-based National Energy Choice was gearing up to meet that reality.

National Energy Choice was formed last year by Stephen Remen, former Commissioner of Energy Resources under Weld; Steven Rothstein, co-founder of



Energy audits, assistance with conservation, and

ongoing monitoring of the market are all

crucial to surviving in a deregulated atmosphere.

Citizens' Energy Corp.; and Paul Barrett, formerly with the Boston Redevelopment Authority and the Rhode Island Economic Development Corp. National Energy Choice is an energy buyer's representative, or broker, Remen explains, and its entire reason for existing is to get its customers the best electric rates possible.

It is a company that could never have existed without deregulation. Regulation forced customers to buy their energy from whichever utility the state assigned to their area. For instance, in parts of Bellingham, Mass., customers on one side of Hartford Avenue get their power from Boston Edison, while customers on the other side of the street get their power from Massachusetts Electric.

The ability to shop around was the opening National Energy Choice needed. Chief Operating Officer John Giesser says the company has assembled a base of clients

that will enable them to get rate packages that are better than the 10 percent default rate cut that began March 1.

Energy brokers "have to do better than the benchmark offer," says Richard Wong, Project Manager for Energy for the Massachusetts Extended Care Federation. The federation represents more than 500 nursing homes, assisted living centers, and extended care facilities across the state. It is also a National Energy Choice customer.

Giesser and Remen say beating that 10 percent benchmark will be possible under deregulation for a number of reasons. By being able to throw out geography, the energy needs of companies both small and large can be grouped together in order to give all of them clout with the utilities.

Also, seasonal businesses can team up to present "a good load profile" to a utility, Giesser says. A ski resort in



John Howe
American Superconductor

the Berkshires, for example, could team up with a seaside resort on Cape Cod. Individually, neither would be attractive customers to utilities because they only use power for half the year. But by presenting a consistent, year-round load profile to the utility, each stands a greater chance of getting a better rate package from competing utilities.

But Wong says he expects more than just good rates from National, and he urges anyone doing business with a broker to look beyond rate packages. Energy audits, assistance with conservation, and ongoing monitoring of the market are all things Wong says are crucial to surviving in a deregulated atmosphere (see "Broker Checklist," this page). Remen agrees: "By doing all of those you can realize substantial reductions in your energy costs."

Remen notes that customers can take advantage of natural gas deregulation in Massachusetts as well. He says his company has drawn up packages to combine both electric and natural gas deals to create total energy savings for its customers.

Powerful Shot

Ironically, deregulation has meant that one of National's competitors in the race for customers once was one of the state's largest suppliers of electricity: Boston Edison. Edison recently sold off all of its non-nuclear power plants to Sithe Energies of New York for about \$536 million.

"We're not in the power generating business anymore," Edison's May says. "Boston Edison intends to triple our customer base." Currently, the power company provides electricity to 650,000 customers in Eastern Massachusetts. Edison intends to have 2 million customers by the end of 2000. But unlike the Edison of the past, the new Edison will be merely procuring electricity for its customers, not generating it.

"This is going to be a great shot in the arm for the Massachusetts economy and the economy of New England as a whole," May says. Large amounts of money are going to be spent in the state and new jobs are going to be created as the electric industry transforms itself for the next century. "Sithe Energies has pledged to spend more than \$1 billion" over the next three years to build new power plants using the latest and cleanest technology, he says. In addition, the \$536 million Sithe used to buy the non-nuclear plants from Edison will be used to offset so called "stranded costs."

Eventually, May adds, Massachusetts is going to see the infusion of billions of dollars of capital, the creation of more than 6,000 megawatts of new generating capacity, and a free market landscape that will save commercial customers money that they can reinvest in their businesses. "Deregulation spells jobs. It spells reduced energy costs," he says.

The DOER's O'Connor uses a metaphor to depict the future.

"The way we use a telephone has changed dramatically since that industry was restructured," he says. "We now have faxes, voice mail, e-mail, the Internet, mobile phones. We've come a long way from the old rotary dial.

"I can't predict what exactly the new products and services will be, but I can say that a similar wave of innovation, entrepreneurialism, and invention will take place in the competitive electric marketplace." ●

Brian Sullivan is a freelance writer based in Needham, Mass. His article on the revival of Chelsea appeared in the first issue of Business Ingenuity.

Broker Checklist

Here are a few things that companies trying to save money in a deregulation environment should look for when hiring an energy broker:

- Can the company go it alone? Are there ways of generating electricity available without using an outside vendor? New technologies such as gas turbines and small co-generation plants make it possible for some companies to provide for their own energy needs.
- Make sure the broker can get you a better deal than you could get by not doing anything. In Massachusetts, companies should realize at least a 10 percent savings on their energy bills in the newly opened market.
- The broker should provide value-added extras for its clients. Businesses should expect to receive help conducting energy audits, tips on conservation, and perhaps training for employees.
- The broker should constantly monitor the deregulation process to provide clients with the latest information on any changes in the law and the economic impact those changes may have.
- The broker should monitor the market on an ongoing basis to watch for better deals that may spring up as more energy providers begin generating electricity.
- The broker should be able to analyze trends in the market to help its clients negotiate around fluctuations in the price of energy that may be caused by other economic factors, such as changes in the stock market.
- The broker should be able to help clients with other energy-saving measures, such as adding more efficient machinery and improving work flow or the manufacturing process.

—B.S.

TeleCom City

Could Be the Address of the Future

Brian Sullivan

BOSTON

The goal is to take a former industrial area on the banks of a forgotten river and turn it into the world's telecommunications address, a huge parcel encompassing parts of three cities where companies leading the next wave of high-tech innovation will set up shop and employ more than 7,000 people within 10 years.

If the foundation for the TeleCom City idea weren't already in place, that ambitious goal might raise the eyebrows of skeptics. But solid support has already arrived and more is on the way.

The mayors and legislators in the cities of Everett, Malden, and Medford, as well as residents, have pledged cooperation in making the site a reality.

More than \$35 million in state and federal money has been earmarked for infrastructure improvements to the site and surrounding areas, and additional proposed funding would help acquire land and make further improvements.

Several major universities, including Boston University, the University of Massachusetts at Lowell, and Tufts University, have all pledged technical and academic support for the TeleCom City idea.

Finally, and perhaps most importantly, the private sector has already invested \$50,000 for initial research.

"Here's an opportunity to develop an economy that the state is trying to capture," says Richard C. Howard, Malden Mayor and Chairman of the Mystic Valley Development Commission. The development commission comprises the mayors of the three cities, residents from each of the cities, and Governor Paul Cellucci in an ex-officio capacity.

Howard says there currently is no key address for the telecommunications industry, as there is for the computer industry with Silicon Valley or Route 128.

"This is going to happen somewhere in the country. We're saying, 'Let it happen here,'" says Medford Mayor Michael McGlynn.

To do that, the three mayors have targeted a 200-acre parcel along the banks of the Malden River for reclamation and redevelopment. The idea is to use loans from the state to buy out the vacant industrial buildings along

both sides of the river and renovate or replace them with more than 1.8 million square feet of commercial space aimed at research and development.

"I am excited and enthusiastic about the opportunity for the city to redevelop acres and acres of underutilized land that is in less-than-pristine condition and of little benefit to the cities' tax rolls," says Everett Mayor David Ragucci. "The reclamation of this land is priceless."

That reclamation will likely be helped by a number of economic and tax incentives provided on the state level. The cities will ask the state to declare the land an Economic Target Area, which would make several state and local tax incentives available to businesses that develop on that site.

Howard and McGlynn say state support has been terrific. They point to the efforts made by the Massachusetts Department of Economic Development and Office of Business Development. They also credit their state representatives for keeping the project visible on Beacon Hill.

The proponents are trying to secure a series of loans from the state to begin the process of bringing the land under single ownership, says Malden Redevelopment Authority Executive Director Stephen M. Wishoski. Wishoski says having the three city governments act in unison to purchase the land is crucial to the project, because private industry could not make the large investment in land and buildings necessary to develop the park with a single vision.

What is truly unique, though, is that each of the three cities will get a share of the tax revenue based on the proportion of the land that falls within their boundaries and not based on the kind of development built on the land. Under usual circumstances, a parking lot would not generate as much tax revenue as a building. Therefore, if a building were located in one city and the parking lot in another, the city with the parking lot would receive less revenue. But under the agreements among the three cities, all will receive a share of the total revenue generated.

"When we started this we pledged to leave the egos out of everything," McGlynn says.

"This is the perfect example of what can be accomplished when three communities work together instead of compete against each other," says David A. Tibbetts, Director of Economic Development for Massachusetts.

But it is not just the public officials that see the potential for TeleCom City. BankBoston, Bell Atlantic,

South Coast



MASSACHUSETTS
POWERED BY INGENUITY

South Coast

Cooperation lies at the heart of



At midnight on election night 1997, New Bedford Mayor Frederick M. Kalisz Jr. and Fall River Mayor Edward M. Lambert Jr. left their respective victory parties, got in their cars, and drove to a highway overpass in Dartmouth, Mass. There, in the glow of headlights, the two men shook hands and began a new chapter in the history of southeastern Massachusetts.

"It was the most important act I have seen two politicians do in years," says David A. Tibbetts, the state's Director of Economic Development. "It was wonderfully symbolic, and it resonated in Boston as well."

In the 19th century, New Bedford was one of the world's leading whaling and fishing centers, and South Coast ports remain active today.



Spinner Publications / New Bedford Aquarium



The handshake at midnight is turning a sometimes bitter rivalry between the two cities into a partnership that will benefit the entire region of the state known as the South Coast.

The mayors gave the political endorsement to an idea that had begun with the business community years ago. The idea was that cities and towns with long individual histories and vivid homespun traditions could come together for a common purpose. More than 300,000 people live in the South Coast, which includes New Bedford, Fall River, and the surrounding communities. Formed by the Taunton River and Narragansett Bay on the west and Buzzards Bay to the east, the South Coast has a rich history of manufacturing and textiles and an international reputation as a gateway to the world.

"One hundred years ago, if anyone in the world asked where Boston was, they would have

Region's resurgence



Bristol County Convention & Visitors Bureau / Moore & Isherwood Inc. & (pic. to right)

The South Coast's rich history is evident in the Victorian homes and other reflections of wealth and commerce.

been told it was somewhere north of New Bedford," says Frederick Satkin, President of Satkin Mills in New Bedford. "It had the fourth-largest commercial fleet in the country. New York was first, then Philadelphia and New Orleans, and then New Bedford."

That position as a world leader in trade and commerce is something the entire South Coast region is on the verge of recapturing. Meanwhile, both cities still see a large amount of commercial shipping.

"A lot of fresh produce comes into New Bedford," says Peter Cressy, Chancellor of the University of Massachusetts at Dartmouth. Cressy, who previously served as president of the Massachusetts Maritime Academy, adds that New Bedford still boasts one of the most active fishing fleets in the region, and on the Fall River side, large carriers use the port to offload their cargo.

Even as the ports in both cities remain active, the South Coast region is about to secure its future as a major handler of air cargo as well, a move which further underscores the spirit of cooperation throughout the area.

After officials in Fall River opted to close their city's municipal airport, they decided to throw their resources behind efforts to revitalize New Bedford's airport. The project will lengthen the runway at New Bedford's facility by 3,000 feet so it can handle larger cargo planes.

Satkin says expansion will help strengthen the region's fishing industry because it will allow more seafood to be flown out of the South Coast to the rest of the country and to the rest of the world.

"Nobody wants a day-old fish," Satkin says.



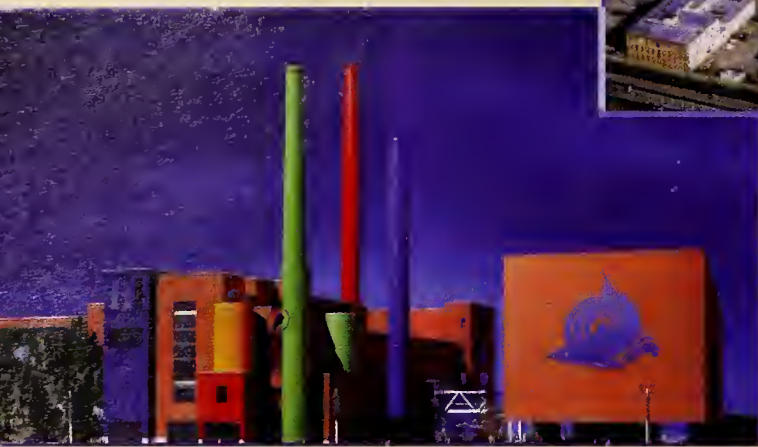
Pick and Pack

All these improvements are designed to help restore the region's reputation as a world-class shipping and manufacturing center, but it is already seeing an influx of foreign trade and manufacturing.

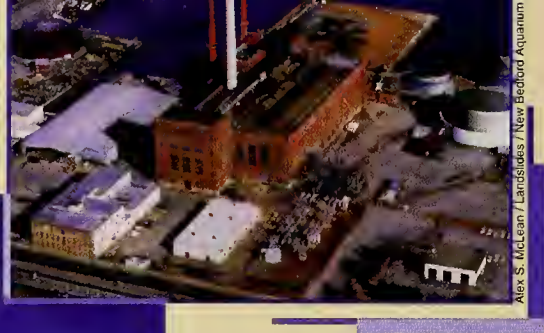
Riverside Manufacturing is a producer of high-end men's suits that is owned by an Italian parent company, says Larry Cameron, Southeast Regional Director for the Massachusetts Office of Business Development (MOBD). Impressed by the large pool of highly skilled textile workers in the region and the receptive South Coast economy, Riverside's parent company has moved a "good portion of its manufacturing operation from Italy to New Bedford," Cameron says.

And on the South Coast end, officials and businesspeople are reaching out to their European and African counterparts to build new trade routes through the South Coast. Satkin predicts it will become a major center of what is called "pick and pack," a process in which components from many regions are imported to a central location and then assembled into new products and sent to buyers around the world.

To launch such a business, Satkin says, all you really need are access to cargo entry points and inexpensive warehouse space. The trade routes are being formed, and the region has an abundance of former mills with inexpensive rents or price tags.



Steve Rosenthal / New Bedford Aquarium



Alex S. McLean / Landslides / New Bedford Aquarium

The proposed New Bedford Aquarium, to be located in an old power plant, could draw an estimated 1.3 million visitors a year and focus the world's attention on the region's maritime connection.

In fact, it is that buyers' market which makes the South Coast one of the most affordably attractive commercial and residential real estate markets in New England. Beautiful homes and plenty of office and manufacturing space are priced affordably and lie within a short drive, and in some cases a short walk, of the Atlantic Ocean.

Arthur Motta Jr., who heads up New Bedford's marketing efforts, says that before he and his wife started their family, they would often grab their bikes, walk down to the city ferry, and find themselves on Martha's Vineyard 45 minutes later.

That's something you can't do from most other places.

That ocean frontage even gives the South Coast a milder climate than the rest of New England, Satkin says. If it snows in Boston, the South Coast usually receives a mild rain. And now there are plans to restore commuter rail service between Boston and Fall River and New Bedford.

"It won't be long before people discover the South Coast," Tibbetts says. "We've been trying to reach out and focus special attention on the region." That attention already has led a variety of companies, from giant AT&T to Mike's Auto Body in Fall River, to make their own discoveries of the region.



The Incentives

Most of the South Coast falls in an Economic Target Area (ETA). The state has 34 ETAs that offer qualifying businesses a number of possible economic incentives, including:

- a 5 percent investment tax credit for all businesses, not just manufacturing
- a 10 percent abandoned building tax deduction (abandoned meaning at least 75 percent vacant for at least 24 months)
- a special tax assessment or tax increment financing arranged with the municipality
- priority status for state capital funding.

Cameron says the South Coast has one of the most active and energetic business communities in the state when it comes to taking advantage of economic incentives sponsored by the Commonwealth. Fall River, for example, has 19 certified projects under way, which have brought a total of more than \$77.2 million of new investment to the city and created more than 550 jobs. Throughout the region, such projects are responsible for \$219 million in new investment and more than 1,700 new jobs.

The companies involved receive either a special tax assessment or, more commonly, tax increment financing.

Under a special tax assessment, a city or town, while still assessing the property at full and fair value, collects only a percentage of the tax during the life of the project. In the first year, the tax is zero percent of the existing and new assessed value of the real estate. In the second year, the municipality can tax up to 25 percent of the assessed value, up to 50 percent in the third year, and up to 75 percent in the fourth year. In the fifth year, the property can be taxed at up to 100 percent of its actual assessed value. After that, the property is taxed at full valuation.

The more flexible type of tax incentive pro-

South Coast EDIP Projects

The state's Economic Development Incentive Program allows cities and towns to offer enhanced tax credits to businesses, and South Coast communities have used this to attract and retain many businesses. To date, the 45 projects, with a combined investment value of more than \$178 million, are responsible for 2,435 jobs created and 5,040 jobs retained.

Company	Jobs Created	Jobs Retained	City/Town	Industry
Dartmouth Building Supply	9	70	Dartmouth	Lumberyard and retail store
Dartmouth Millwork	4	2	Dartmouth	Manuf./doors and windows
Dartmouth Sports Dome	10	0	Dartmouth	Sporting complex
Harvey Industries	250	50	Dartmouth	Building products
Titleist and Foot-Joy Worldwide	24	325	Dartmouth	Manuf./golf balls
AT&T Corporation	1,000	0	Fairhaven	Telephone utility
Titleist and Foot-Joy Worldwide	10	55	Fairhaven	Manuf./sporting goods
AA Precision Machine Co.	6	15	Fall River	Manuf.-design/precision molds
Airtec Products Corp.	14	6	Fall River	Manuf./plastic ceiling diffuser
C.H. Yates Rubber Corp.	20	86	Fall River	Manuf./rubber and plastic molded products
F. Nasiff Jr. & Co.	5	30	Fall River	Wholesale produce
Fall River Five Cent Savings Bank	15	115	Fall River	Bank
Fall River Manufacturing Co.	30	35	Fall River	Manuf./industrial fasteners
International Institute of Culinary Arts	15	0	Fall River	Hospitality school
IQF Custom Packaging	40	22	Fall River	Seafood freezing operation
Lightolier	80	30	Fall River	Manuf./light fixtures
M&D Partnership/American Dryer Corp.	12	233	Fall River	Manuf./commercial clothes dryers
Mass Transfer Systems	17	26	Fall River	Jet aeration and mixing systems
Mike's Auto Body	5	10	Fall River	Auto body and repair shop
New York Bagel Co./Ginsco	12	13	Fall River	Manuf./bagels
Pep Boys-Manny, Moe & Jack of DE	10	0	Fall River	Automotive retailer
Precision Engineering Plastics	10	20	Fall River	Manuf./plastic components
Priority Finishing Corp.	50	203	Fall River	Dyeing/finishing/multi-color printing operations
Quaker Fabric Corp.	165	1,567	Fall River	Manuf./woven upholstery fabric
Ramsbottom Printing	14	28	Fall River	Commercial printing
Wakefield Engineering	33	284	Fall River	Manuf.-design/thermal management products
Howland Tool & Machines	7	5	Freetown	Manuf./clean injection molder
3W (McDonald's of New Bedford)	22	0	New Bedford	Restaurant
Acushnet Rubber Co.	50	715	New Bedford	Custom molder of elastomers
AFC Cable Systems	50	170	New Bedford	Manuf./armored cable
Clean Rentals	20	22	New Bedford	Commercial launderers
Friendly Fruit	5	0	New Bedford	Wholesale produce
Maritime Realty	1	1	New Bedford	Seafood and scallop business
Nameplates for Industry	9	42	New Bedford	Manuf./labels and decals
Northern Wind	25	38	New Bedford	Ice production
Riverside Manufacturing Co.	156	431	New Bedford	Manuf./apparel
Sea Watch International	100	0	New Bedford	Seafood
Trio Algarvio	5	3	New Bedford	Seafood processing
Clifton Assisted Living	12	0	Somerset	Nursing home
Clifton Supportive Living	14	246	Somerset	Rehab nursing center
Fiberspar	25	75	Wareham	Manuf.-devel./tubular products
Franklin Fixtures	20	25	Wareham	Manuf./wood products
Hostar Marine Transport Systems	12	15	Wareham	Manuf./boat trailers
Navionics	30	15	Wareham	Manuf./software
Trego	12	12	Wareham	Manuf./electrical harnesses

SOURCE: Massachusetts Office of Business Development

gram is the tax increment financing (TIF) agreement. Under a TIF, a tax incentive arrangement can be made for up to 20 years and no less than five. Essentially, a TIF allows the city or town to waive a percentage of the new taxes that would have been levied because of improvements to the property.

Suppose, for example, a company bought a \$100,000 parcel of land and built a \$400,000 building. While the total assessed value of the land is now \$500,000, the city does not have to tax the land at that value. Instead, it can waive a percentage of the taxes on the \$400,000 worth of improvements.

Among the companies to take advantage of this arrangement has been AT&T, which has a five-year TIF, waiving 40 percent of the taxes on the \$17 million of investments it has made in its facility in Fairhaven. Likewise, the Quaker Fabric Corp., which has just embarked on a \$47 million expansion that is expected to create more than 1,500 new jobs in Fall River, has taken advantage of a 10-year TIF that waives 50 percent of its new taxes.

But the TIF isn't the only state-sponsored tool Quaker has decided to use.



Focus on Education

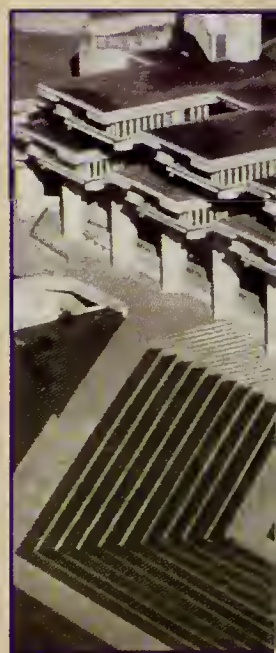
On March 13, Quaker Fabric received a \$42,000 check from the Commonwealth to help fund the company's worker training programs, according to Cynthia Gordan, Quaker's Vice President and General Counsel. She says Quaker officials understand that without a well-trained workforce, the company would be nothing but a group of empty buildings and worthless equipment. So Quaker has embarked on an ambitious program with Bristol Community College, under the direction of BCC President Eileen Farley, to help the workers with GED and English as a Second Language courses, Gordan explains. Teachers from the college hold classes at the plant to help the workers advance their education and improve their lives without making them travel to the campus.

"I think the very mission of the community college is to reach out and provide educational opportunities to people along the whole continuum," Farley says, from "helping immigrants learn to speak English, to helping students prepare for specific careers, to outreach programs through our Center for Business and Industry."

Reaching businesses is an important part of the educational process, Farley says, so the college works with employers to provide the training and the educational opportunities the workers need. Sometimes, several companies will have similar needs, and when that happens the school will work with all the companies so one class can meet the needs of many people. In the past, "companies weren't crazy about the idea of their workers mixing with workers from other companies," Farley says. The changing attitude "shows how enlightened" businesses are becoming to the need for quality education.

The increased emphasis on education has spread across the entire South Coast region and has touched on all levels. Seven of the region's school districts and superintendents have cooperated to implement higher standards for educating children. Cressy, the Chancellor of UMass-Dartmouth, says the effort recognizes the need for all the children in the South Coast region to have a strong educational foundation. "They're really doing it right," he says of the schools.

The region's textile heritage, which is still a big part of its future, has also influenced educational opportunities. UMass-Dartmouth offers a degree in textile science, and Cressy says the university was able to create that niche with the help of the textile industry.



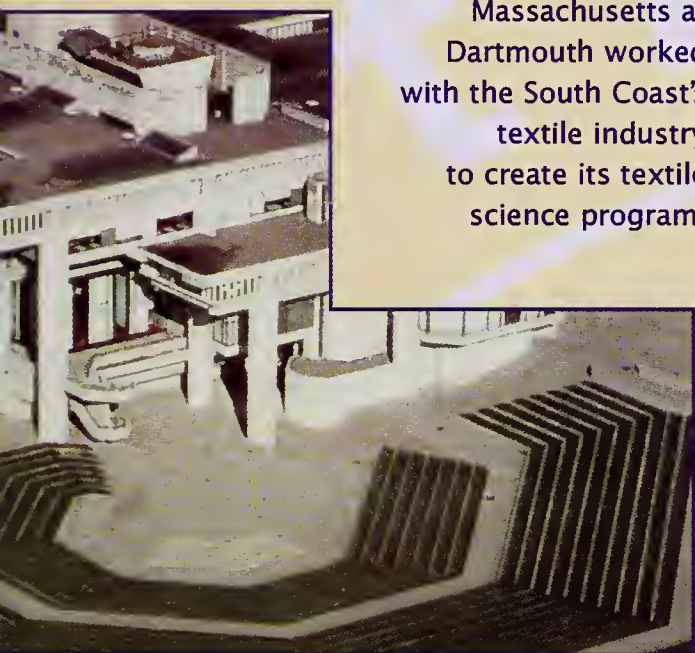
Peter Cressy, Chancellor of the University of Massachusetts at Dartmouth, says South Coast school districts recognize the need for all children to have a strong educational background.

Quaker's Gordan says the region's textile manufacturers were eager to help because having a large pool of talented and well-trained workers just a short drive from many of the world's largest manufacturers helps everyone. Satkin says that clustering of major manufacturers, along with the educational opportunities, has created a dynamic and powerful economic foundation for the entire region.

But while Satkin makes his living from textiles, he is equally proud of the educational, business, and research opportunities that are growing throughout the South Coast in the area of marine science.

"There are more marine scientists with graduate degrees in this region than anywhere else in the world," Satkin claims. "It is a little-known fact, but a major piece." Satkin doesn't think it will remain a secret for long, however, because the New Bedford Aquarium, scheduled for completion in 2001, will put the spotlight on the region's marine science sector for years to come.

The University of Massachusetts at Dartmouth worked with the South Coast's textile industry to create its textile science program.



Bristol County Convention & Visitors Bureau

But Andonian didn't just make the space available at a cheap rate; he made it available for free until the start-ups gained a foothold in the economy. Andonian described his "Plan for 1,000 Jobs" in the *New Bedford Standard-Times*: "The...plan is based on no one contributing money, no government taxes or grants, but is based on enlightened self-interest, with people volunteering time or providing their ideas to create jobs."

Tibbetts says that kind of dedication and spirit is what makes the South Coast the gem that it is. And its two major cities are jewels in the history of the state.

Fall River, once the terminus of the elegant Fall River Line that ferried the world's rich and famous to and from New York City, now is home to Battleship Cove, with the USS *Massachusetts* and one of the world's largest *Titanic* museums, says Skip Darmody, Community Liaison for Fall River Mayor Edward Lambert. In fact, the model used in the 1950s movie *A Night to Remember* and Mary Astor's life preserver reside at the Maritime Museum, just a short walk from the *Massachusetts*.

"And then there's Lizzie Borden," Darmody says with a smile. Tourists can even stay in her home, which has been turned into a bed and breakfast.

New Bedford's history as one of the most successful whaling and commercial shipping ports in history is now reflected in the beautifully restored downtown, designated a National Historical Park. An aquarium that will rival any in the world and a waterfront that is being restored and reclaimed also add to New Bedford's appeal.

"The whole area has a lot of potential, from Acushnet to Somerset," MOBD's Cameron says. "It's really ready to take off."

"We have two excellent mayors down this way," he adds. "These are two very dynamic people who are interested in seeing economic growth throughout the whole area, and as long as you have two really dynamic mayors, things are just going to happen."

It Comes Down to People

In addition to all of the business opportunities and educational advancements, Tibbetts says there is something else that makes the South Coast so special: the people. From the workers to the business owners, the region is filled with people who are willing to work hard and lend each other a hand.

Martin D. Andonian, owner of Andonian Cryogenics, Inc., is one example. He renovated an old mill in New Bedford and opened up space on the fourth floor to new businesses trying to get a start.

Street festivals are just one manifestation of the urban and cultural community in Fall River and throughout the South Coast.



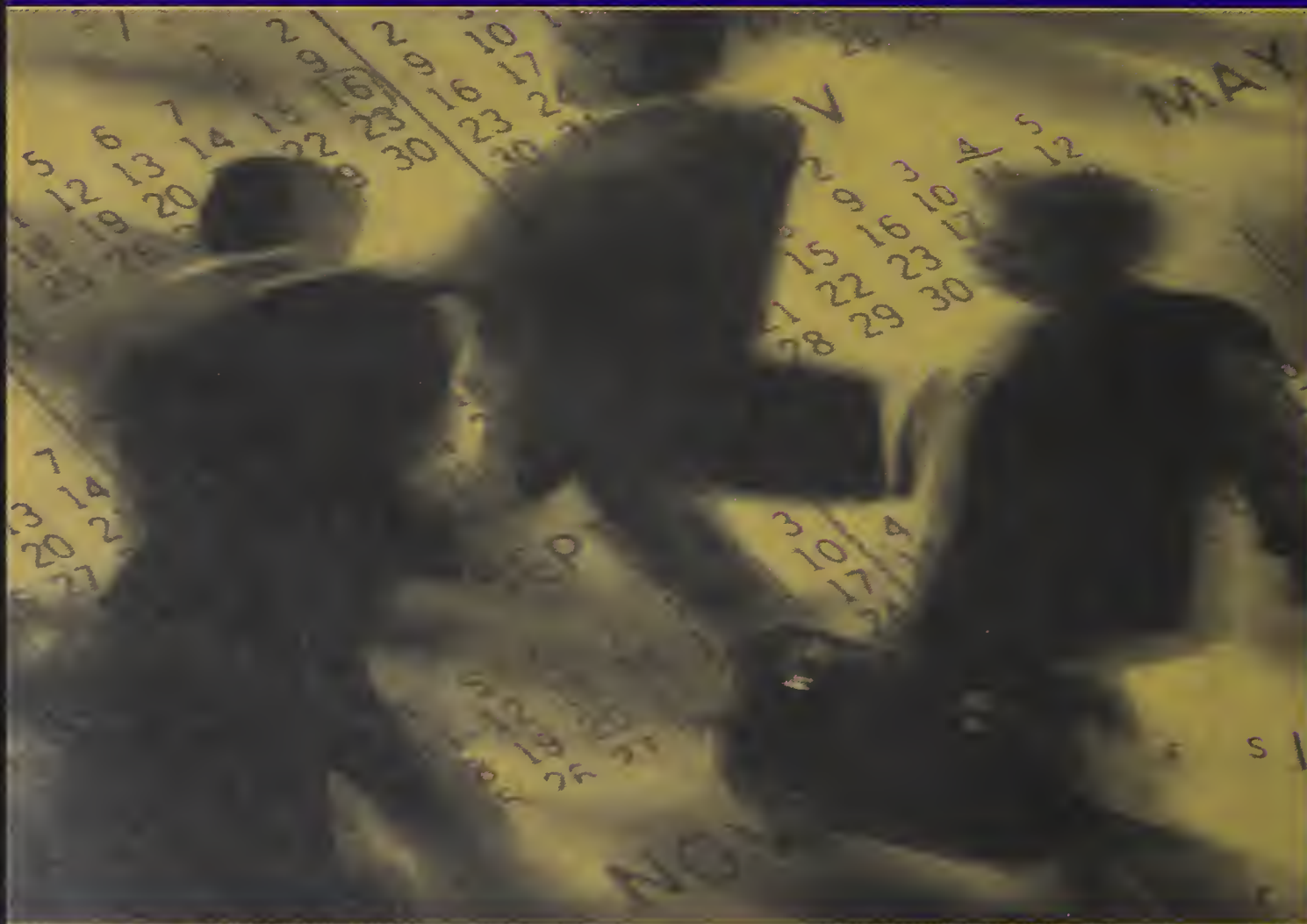
Bristol County Convention & Visitors Bureau

Argeo Paul Cellucci
Governor

David A. Tibbetts
Director of
Economic Development

MASSACHUSETTS
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www.state.ma.us/mobd



Time Warner, and several other companies have stepped forward with money to study the region's labor market. They want to find out how education and background affect area residents' career possibilities.

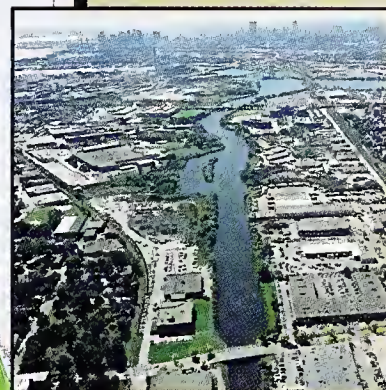
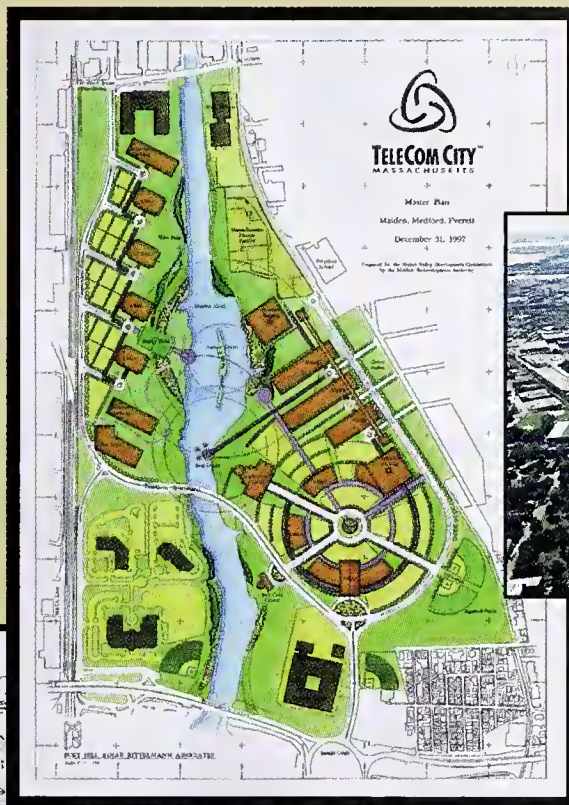
Employment also features prominently in one of the site's anchors.

The Lifelong Skills Center aims to make it possible for people to spend their entire careers at TeleCom City, even if they don't stay in the same job or with the same company. The proponents of TeleCom City realize the telecommunications industry is a rapidly changing environment. By having a training facility on site, workers can upgrade their skills and adapt to meet the changing needs of their industry.

Beyond all of the foresight and cooperation and support, though, TeleCom City has something else that is key to any great business and real estate opportunity—location. Situated just north of Boston, the parcel is about 10 minutes from Logan International Airport and downtown Boston. Route 128 lies about a 10-minute drive in the opposite direction on Interstate 93. And because the Malden River runs into the Mystic River,

which in turn flows into Boston Harbor, there are negotiations under way to tie the site to the water shuttle system run by the Massachusetts Port Authority.

The former industrial area on the banks of a forgotten river already is well on its journey to becoming TeleCom City, the world's leading telecommunications address. ●

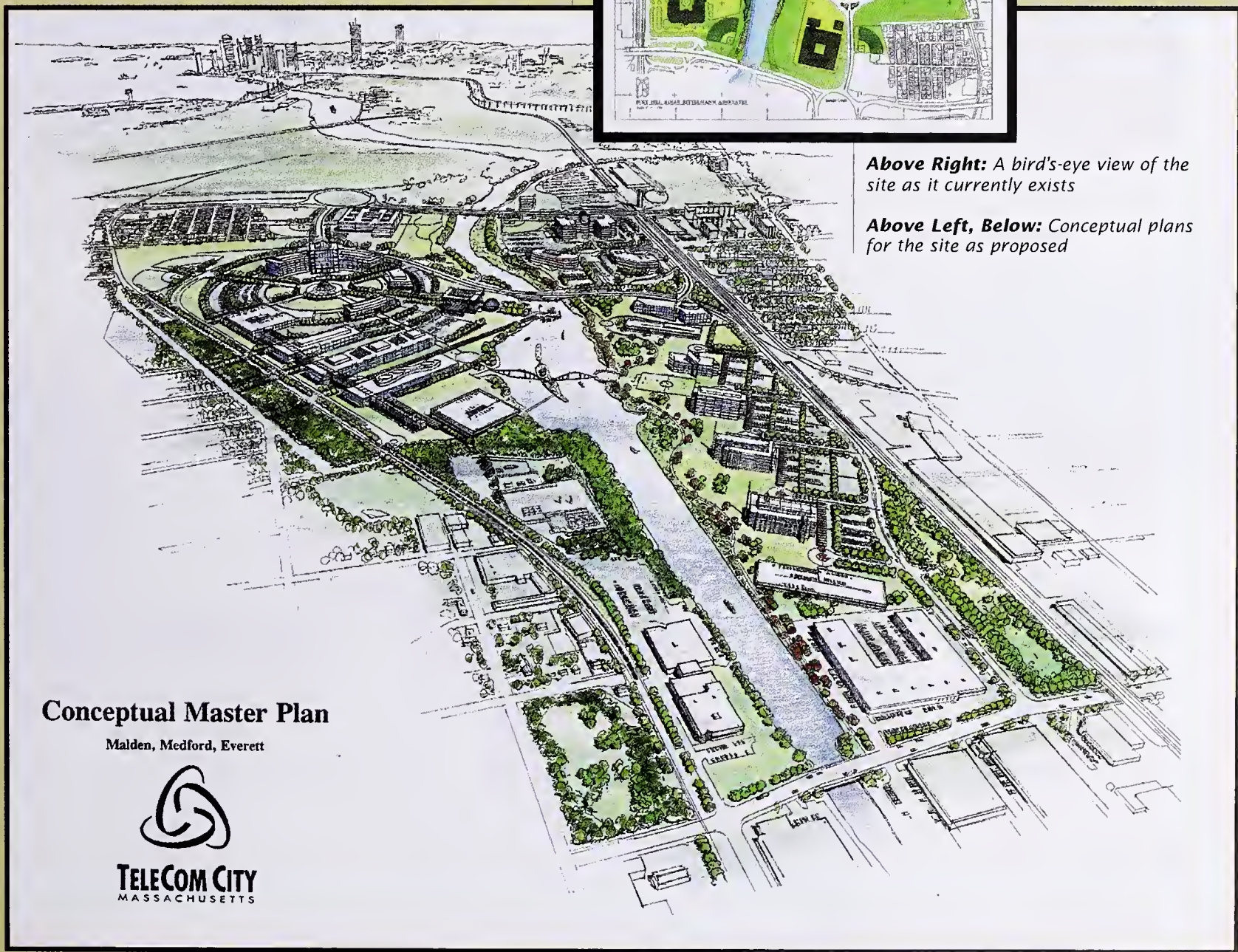


BURT HILL KOSAR RITTELMANN ASSOCIATES

CAROL R. JOHNSON & ASSOCIATES

Above Right: A bird's-eye view of the site as it currently exists

Above Left, Below: Conceptual plans for the site as proposed



Conceptual Master Plan

Malden, Medford, Everett



This Chamber

Follows a Tradition of Innovation

Clay Collins

NORTHEAST

The muscle and grit of Massachusetts's Merrimack Valley had much to do with America's economic rise. But a tradition of innovative thinking has always given it a brain to match its brawn.

Transcendentalism and Utopianism flowed from the homesteads of sometime-locals named Emerson, Hawthorne, and Alcott. These days innovative thinking is called "thinking out of the box." And one leader in the modern movement is named Bevilacqua.

President and Chief Executive Officer of the Merrimack Valley Chamber of Commerce (MVCC) since September 1992,

Joseph James Bevilacqua has forged an organization that has been hailed as a model for its success in attracting and keeping companies. Bevilacqua does it by thinking big, leveraging his considerable connections, and taking an activist approach to the job.

"Joe provides a critical link," says David A. Tibbetts, Massachusetts Director of Economic Development. "He is very successful at bringing the business community to government. He does it by hosting forums, sessions, and

workshops, but also by working directly with companies, one-on-one."

That's already a departure. Typically, chambers of commerce maintain a fairly narrow focus, appearing before city councils to "advocate" on behalf of local businesses, addressing local real-estate tax issues. Such was the case before Bevilacqua arrived at what was then the Greater Lawrence Chamber of Commerce. "Joe put a face on the Chamber with respect to the business community," Tibbetts explains.

"Joe is very successful at bringing the business community to government. He does it by hosting forums, sessions, and workshops, but also by working directly with companies, one-on-one."

—David A. Tibbetts, Massachusetts
Director of Economic Development

"He broke through the old barriers."

From about 400 members, there are now nearly 1,100. Lawrence-based MVCC has expanded from its home city and the towns of Methuen, North Andover, and Andover to include Haverhill, Merrimac, and Amesbury.

"We're not a passive chamber," says Bevilacqua. "We feel we're the hardest-working chamber in the state. We've made ourselves available for every kind of business-assistance program there is."

Often, the assistance comes without any planned program. On a bridge-replacement project in South Lawrence, the builder's plan called for a two-year bridge closing that would have cut off traffic to a corridor of businesses. "Joe's leadership and perseverance, working with the Massachusetts Office of Business Development [MOBD] and the highway department, got the closure time down to eight months," Tibbetts says. All of the businesses rode out that period. "He's everywhere, he's enthusiastic," Tibbetts adds, "and he never goes halfway."

Working With the State

Bevilacqua points out that he never goes it alone, either. Carefully advising companies about available assistance—including tax incentives offered by MOBD—then allowing the state to follow up, "we've become a one-stop resource center," he says. "And we've done that because we've been able to rely on the state's help. We can call the [state agencies]...and people will come out for a meeting. There isn't a question we can't try to find the



Governor Paul Cellucci (left) and
MVCC head Joseph Bevilacqua

answer for. The key is knowing who to go to."

Tibbetts told the *Lawrence Eagle-Tribune*, "Joe has mastered the art of partnerships and collaboration. There is not a resource he does not try to tap into."

"He's not afraid to pick up the phone," agrees Jack Wilson, formerly the Northeast Regional Director for the MOBD. "He makes himself part of the discussion." Whatever the issue, "Joe is there calling on behalf of the business and being part of the discussions right through to the resolution of the problem."

As former economic development director for Haverhill, Bevilacqua's job was to create jobs. That's helped. So has Bevilacqua's community involvement. He sits on about a dozen organization boards, including two gubernatorial appointments to the Economic Assistance Coordinating Council and the Corporation for Business, Work and Learning. And he is a member of the Haverhill School Committee. All this effort isn't just an exercise in collecting titles.

Malden Mills Assistance

When Bevilacqua says "we work with people," he's not talking about faceless bureaucrats.

In late 1995, the region made national headlines when fire gutted Malden Mills, the Lawrence-based manufacturer of Polartec fleece. Some 3,000 people were out of work. CEO Aaron Feuerstein won acclaim by keeping them on the payroll for months. The Chamber of Commerce could have sat back, "but Joe

always takes it one step further," says Wilson. "He had a lead role in raising money on behalf of workers."

After the blaze, the MVCC executive board held an emergency meeting and decided it had to help. "We created an employee-relief fund and raised a third of a million dollars, which was unheard of for a chamber," Bevilacqua says. "We actually coordinated the relief effort."

"Joe is highly regarded in the Merrimack Valley," says Alan Kraunelis, a Malden Mills spokesman who has known Bevilacqua for years. "He works tirelessly for the Chamber of Commerce, and he's very supportive of businesses here, whether they're large or small. He has the highest credibility of anybody that I've met."

Such ability to orchestrate and network gives MVCC an edge. "Joe takes full advantage of the professional relationships he's had throughout his entire career," says Wilson. Everyone benefits. Athletic-shoe giant New Balance has helped bring new life to an abandoned lot in Lawrence. Putnam Investments has brought 2,000 employees to Andover. Italian company TelCom has set up shop in Lawrence and doubled its work force.

"One of the successes of our Chamber has been that once businesses get here, we don't forget about them," Bevilacqua says. "It doesn't matter what kind of business it is or which industry sector [it represents]. They'll all tell you: 'The Chamber's been a partner.' Our goal is never to say, 'We did it all.' Our goal is to say, 'We helped.'" ●

EAGLE TRIBUNE/BGA



Bevilacqua's community efforts include a successful campaign for the Haverhill School Committee.

New Centers

Tap Ocean of Knowledge

Brian O'Connell

SOUTHEAST

The rolling tides and shifting currents of the Atlantic Ocean have offered up a wealth of marine life to whalers and fishermen in Southeastern Massachusetts for hundreds of years. Now the ocean is offering its wealth to the growing number of Massachusetts-based companies keen on studying those waters to help measure Earth's fragile ecosystem and to protect its oceans.

The waters off the Massachusetts coast have traditionally been a haven for marine researchers, who can tap the vast resources of the region's marine habitat industries to assist with their delicate work. The late Jacques Cousteau was a frequent visitor to some of the region's better known marine institutes, like the Woods Hole Oceanographic Institution in Falmouth. With environmental interest in preserving the earth's oceans and their inhabitants at an all-time high, more marine researchers are making Cape Cod and Buzzards Bay ports of call to study the area's rich ocean life. Two new organizations—the University

of Massachusetts at Dartmouth's Center for Marine Science and Technology (CMAST) and the Massachusetts Ocean Technology Network (MOTN), a Hingham-based trade association for New England manufacturing, service, and research firms and institutions—are making a measurable impact on the marine research industry. Locally, they're also providing a knowledge boost for the area's \$500 million seafood industry.

CMAST Looks to the Coast

In October 1997, Governor Paul Cellucci and New Bedford City officials joined with those from the nearby campus of the University of Massachusetts at Dartmouth to christen a \$10 million marine lab devoted to ocean study. Twenty years in the planning and one in construction, the Center for Marine Science and Technology offers 15 new laboratories with running seawater pumped inside, a greenhouse for growing plankton, and the

world's most acoustically quiet 100,000-gallon water tank. The two-story tank was custom-built with no parallel walls and 118 vibration isolators. Center officials expect to use the tank to test advanced undersea laser devices, naval espionage equipment, and the rates of carbon-dioxide absorbed by marine organisms.

The Center plans to steer its research toward the shallow bays and inlets that form a jagged line along the harbor landscape of Buzzards Bay and leave the deep ocean research to the folks at Woods Hole, says Director Brian Rothschild. "We're not looking at the big picture here. We're hoping to provide our students with physical interaction with the marine environment in a functional way." Rothschild, who lists fish farming as one of the Center's prime interests, also cites marine clean-ups as a high priority for his



UMASS-DARTMOUTH

The Center for Marine Science and Technology offers 15 new laboratories with running seawater pumped inside, a greenhouse for growing plankton, and the world's most acoustically quiet 100,000-gallon water tank.

With the new \$10 million marine lab in New Bedford and the swelling membership rolls of MOTN, Southeastern Massachusetts is expanding its reputation for marine research.

research students.

The Center is working closely with New Bedford to help convert some of the city's abandoned mills into high-technology fish farms. The city was recently awarded a \$175,000 federal grant to help with the conversion project, with the help of CMAST and local seafood businesses.

MOTN Helps Chart Conversion

Bridging the gap between academia and big business is also a goal of the Massachusetts Ocean Technology Network, an independent consortium of marine researchers and ocean technology firms formed in 1994 to share ideas and help marine engineering companies find new markets. With declining defense budgets, companies like Benthos, Datasonics, and Klein Associates, which depended on the U.S. Navy purchasing their ultra-sophisticated ocean research equipment, are hoping to capitalize on the growing international interest in marine environments. Specifically, they hope to shift from U.S. defense work to marine environmental monitoring and offshore oil exploration and production in such areas as Southeast Asia and the North Sea.

"The marine industry was negatively impacted by the downturn in government and military spending on deep ocean research," says Maggie Linskey Merrill, MOTN's administrator. "Companies that depended on the military needed to transfer their technological expertise to new areas. I think that we're helping them do that."



ED MACKINNON

Peter Clay of Falmouth-based Mooring Systems participated in an MOTN-sponsored demonstration.

Merrill says that the consortium now includes 36 companies and organizations across New England. It recently held its first joint customer training workshop in Falmouth, where hundreds of visitors got a first-hand look at the region's marine industry.

"We're trying to get a historical underwater recovery operation under way, and just being in Falmouth with MOTN helped a great deal," says Rob Schwab, Project Coordinator at Admiralty Corp. in Atlanta. "We were able to consult with companies like Klein and [Milford, Mass.-based] Edge Tech, which were instrumental in showing us some remote sensing and sidescan high-resolution sonar solutions for our business and how we could make them work for us. It was a tremendously valuable learning experience for us."

Spirit of Cooperation

With the new \$10 million marine lab in New Bedford and the swelling membership rolls of MOTN, Southeastern Massachusetts is expanding its reputation for marine research. And there's plenty of room for all the researchers. "Science doesn't see boundaries the way we do," notes Larry Cameron, Southeast Regional Director for the Massachusetts Office of Business Development (MOBD). "We're already seeing that MOTN and CMAST can easily work alongside Woods Hole and the other established marine research organizations here. There's no competition—just cooperation." ●

Basketball Hall

Aims for Slam Dunk

Bob Woods

WEST



PHOTOS COURTESY OF HALL OF FAME.

The existing Naismith Memorial Basketball Hall of Fame will be replaced as part of a \$103 million renovation project.

Pop quiz: Where is the Basketball Hall of Fame? If you said Springfield, Mass., consider yourself a hoops fanatic. You probably even know that Springfield is where Dr. James Naismith invented the game in 1891. No knock against the Naismith Memorial Basketball Hall of Fame, which opened as the center of enshrinement for professional and college stars in 1968, but it's just never gained the aura of baseball's Cooperstown or professional football's Canton. That, however, is about to change.

On March 12, Springfield Mayor Michael Albano and Dave Gavitt, Chairman of the Hall of Fame's Board of Trustees, announced an agreement for a \$103 million project to renovate the hall and the surrounding 18-acre area along the Connecticut River. Construction is slated to tip off this fall, with completion set for 2000. When it's all done, the city will be graced with a new Hall of Fame, just south of the existing building, a new Regional Tourist Information Center, a 300-space parking garage, improved highways, and a renewed riverfront district for retail and entertainment businesses.

This is an intriguing project on two fronts. Foremost, it will result in a prestigious new home for past and present legends of pro and collegiate basketball, from George Mikan to Michael Jordan, to be honored and for fans to enjoy a state-of-the-art, interactive homage to the game itself. At the same time, it will invigorate the entire city's tourism and business entities. More than 1,500 permanent jobs are expected to be created, and revenues and taxes will annually generate more than \$1.5 million for the city and state. In turn, area hotels, restaurants, and retailers will also benefit.

Getting to this point took some ingenious financial teamwork on the part of the Hall of Fame and the local and state governments. While the Hall of Fame is throwing more than \$10.7 million into the project, and nearly \$24 million is coming from private contributions, public funding will total \$68.5 million. Negotiations between all the parties went on for nearly three years, culminating last fall when the state legislature gave the thumbs up.

"The most significant event was the state passing legislation appropriating the money and [Governor Paul

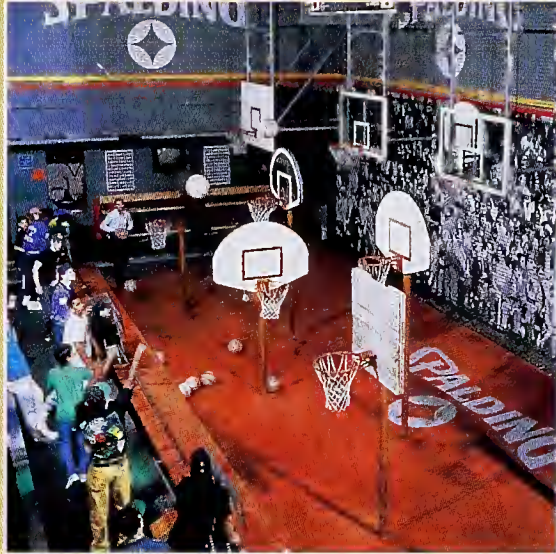
Cellucci] signing it," says Don Gibson, Chief Operating Officer of the Basketball Hall of Fame. "It was evident to the Board of Trustees that we had outgrown the present facility. If we were going to be the institution of the game, we had to look at a larger facility, rebuilt from the ground up. The possibility of moving to another city or state was there, and that provided an impetus. But this is the birthplace of basketball, so the city and board worked together to make it happen."

Gibson acknowledges this may be similar to other cities' waterfront revitalization projects, like those in Baltimore, Philadelphia, and New York, but "we're creating something new. What's unique in my mind is that while the Hall of Fame will be the hub, the restaurants and retail sites will complement the site. Our model is 'retailment' venues—retail and entertainment, especially Disney World. We're a family attraction, appealing to the young and old."

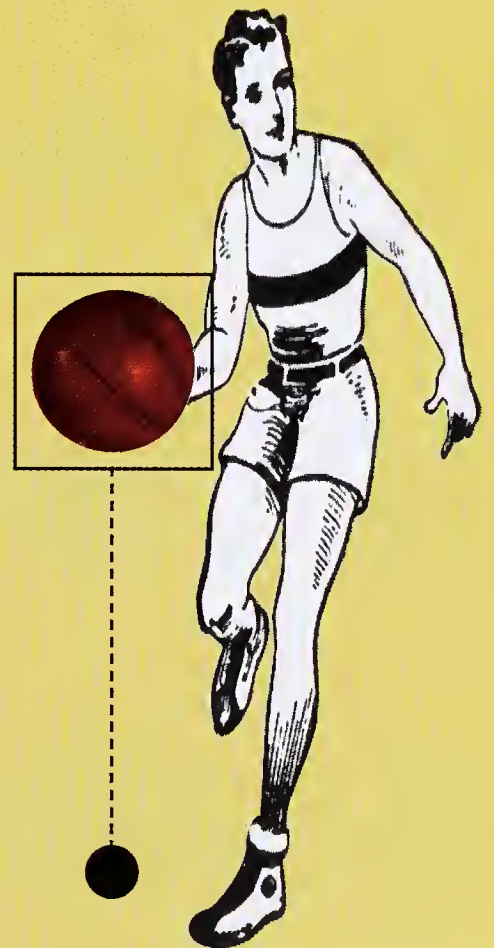
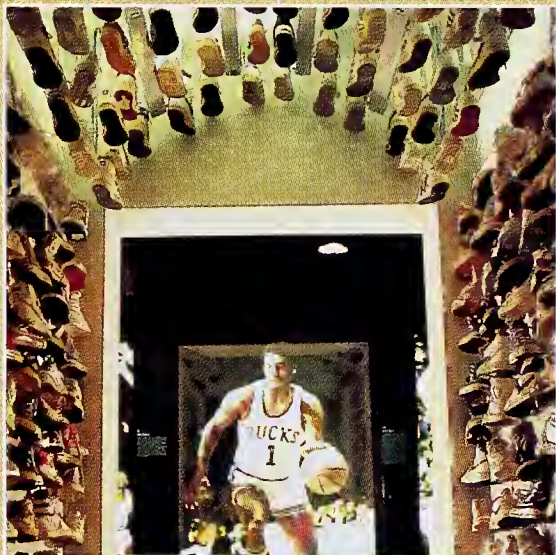
There's certainly much to relish at the current 48,000-square-foot Hall of Fame, which opened in 1985 and includes tributes to the origins and evolution of the game, interactive exhibits, and several chances to get your hands on the ball, but expect more at the new Hall. "First, you have to start with the building," says Gibson, referring to the design. One concept includes a high-rise sphere topped with a new Hall of Fame logo. "It will be a visual icon, like the Eiffel Tower or the Empire State Building. Once you enter, it will be a basketball experience unlike any other. It will be much more interactive, with cutting-edge exhibits. The hands-on elements will be exhilarating. The experience will be compelling, so visitors can spend most of the day at the facility. The Honors Court, where enshrinees are honored, will really be a tremendous space. You'll feel like you've gone to heaven and are playing with the gods."

Gibson is confident that the renovated Hall of Fame will quickly work its way into the hoops lexicon. "We expect it to get to the point where an announcer can say that a player is 'destined to go to Springfield.'" Take that, Cooperstown. ●

At the Hall of Fame, visitors can practice their shots (below) and check out the Sneaker Hall (bottom).



The new Hall of Fame will invigorate the entire city's tourism and business entities.



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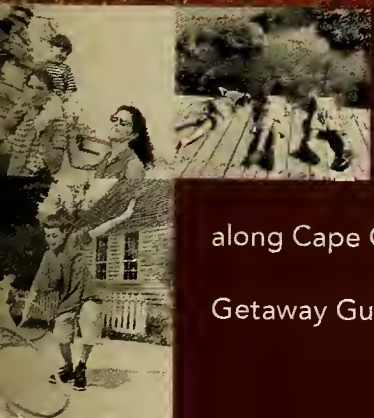
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